TOSHIBA

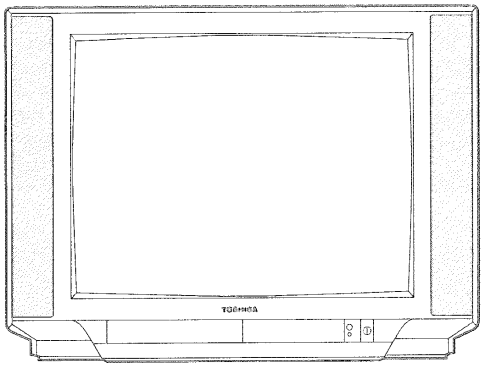
FILE NO. 030-9611

SERVICE MANUAL

COLOUR TELEVISION

C5SS Chassis

2557DB



PRINTED IN JAPAN, Apr., 1996 (So)

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. The E.H.T. must be checked every time the receiver is serviced to ensure that the C.R.T. does not emit X-ray radiation as result of excessive E.H.T. voltage. The nominal E.H.T. for this receiver is 32.6 kV at zero beam current (minimum brightness) operating at 220V a.c. The maximum E.H.T. voltage permissible in any operating circumstances must not exceed 29.5 kV. When checking the E.H.T., use the 'High Voltage Check' procedure in this manual using an accurate E.H.T. voltmeter.
2. The only source of X-RAY radiation in this receiver is the C.R.T. To prevent X-ray radiation, the replacement C.R.T. must be identical to the original fitted as specified in the Parts List.
3. Some components used in this receiver have safety related characteristics preventing the C.R.T. from emitting X-ray radiation.
   For continued safety, replacement component should only be made after referring the Product Safety Notice below.

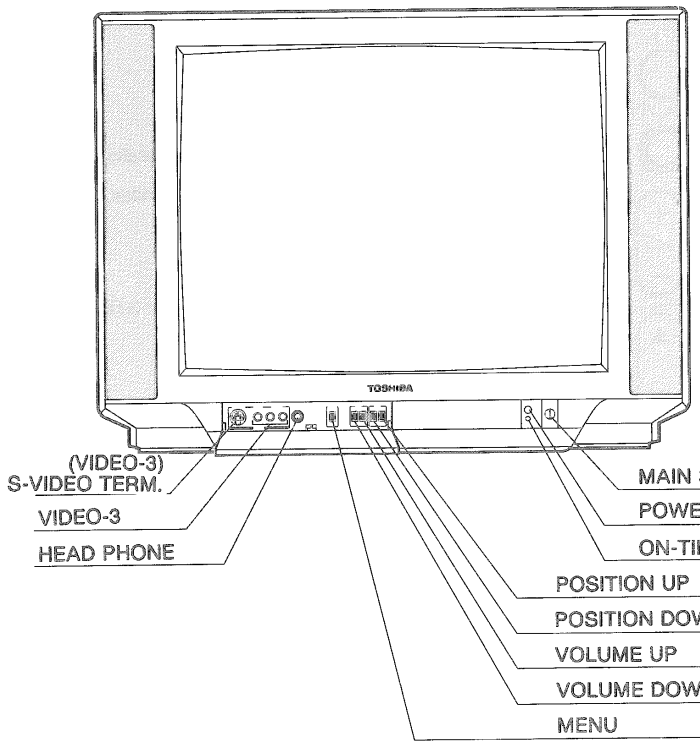
SAFETY PRECAUTION

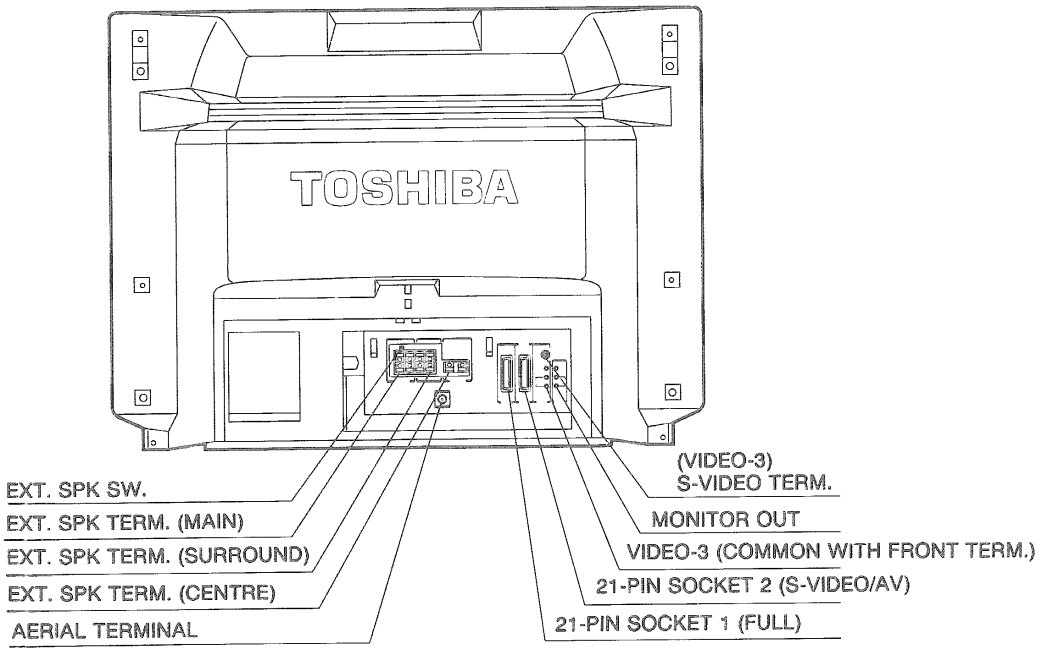
1. This receiver has a nominal working E.H.T. voltage of 28.5 kV. Extreme caution should be exercised when working on the receiver with the back removed.
   Do not attempt to service this receiver if you are not conversant with the precautions and procedures for working on high voltage equipment.
   When handling or working on the C.R.T., always discharge the anode to the receiver chassis before removing the anode cap
   The C.R.T., if broken, will violently expel glass fragments. Use shatter proof goggles and take extreme care while handling.
   Do not hold the C.R.T. by the neck as this is a very dangerous practice.
2. It is essential that to maintain the safety of the customer all cable forms be replaced exactly as supplied from factory.
3. A small part of the chassis used in this receiver is, when operating, at approximately half mains potential at all times. It is therefore essential in the interest of safety that when serving or connecting any test equipment the receiver should be supplied via a suitable isolating transformer of adequate rating.
4. Replace blown fuses within the receiver with the fuse specified in the parts list.
5. When replacing wires or components to terminals or tags, wind the leads around the terminal before soldering. When replacing safety components identified by the international hazard symbols on the circuit diagram and parts list, it must be a Toshiba approved type and must be mounted as the original.
6. Keep wires away from high temperature components.

PRODUCT SAFETY NOTICE

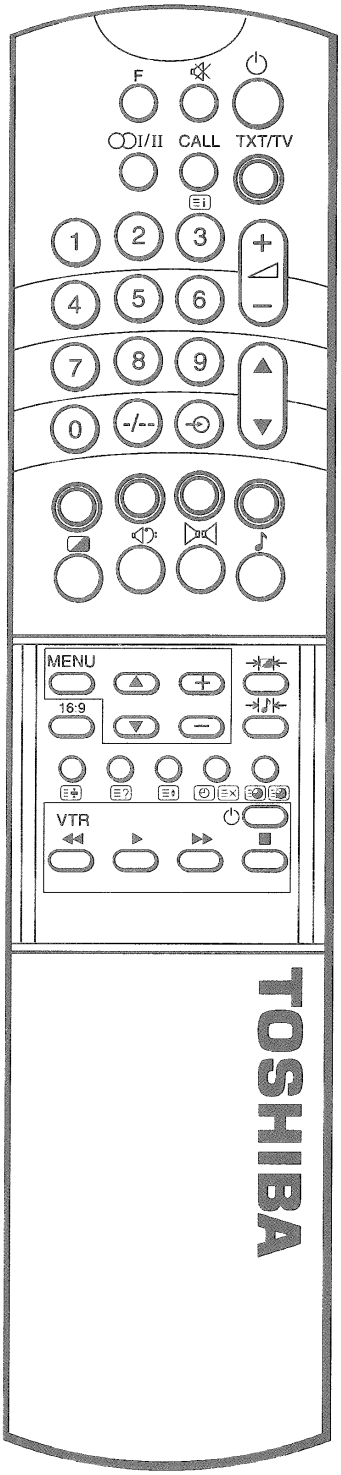
Many electrical and mechanical components in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-ray radiation protection afforded by them cannot necessarily be obtained by using replacements rated at higher voltages or wattage, etc. Components which have these special safety characteristics in this manual and its supplements are identified by the international hazard symbols on the schematic diagram and parts list. Before replacing any of these components read the parts list in this manual carefully. Substitute replacement components which do not have the same safety characteristics as specified in the parts list may create X-ray radiation.

FRONT CONTROLS AND REAR VIEWS





REMOTE HAND HELD UNIT



CT-9763

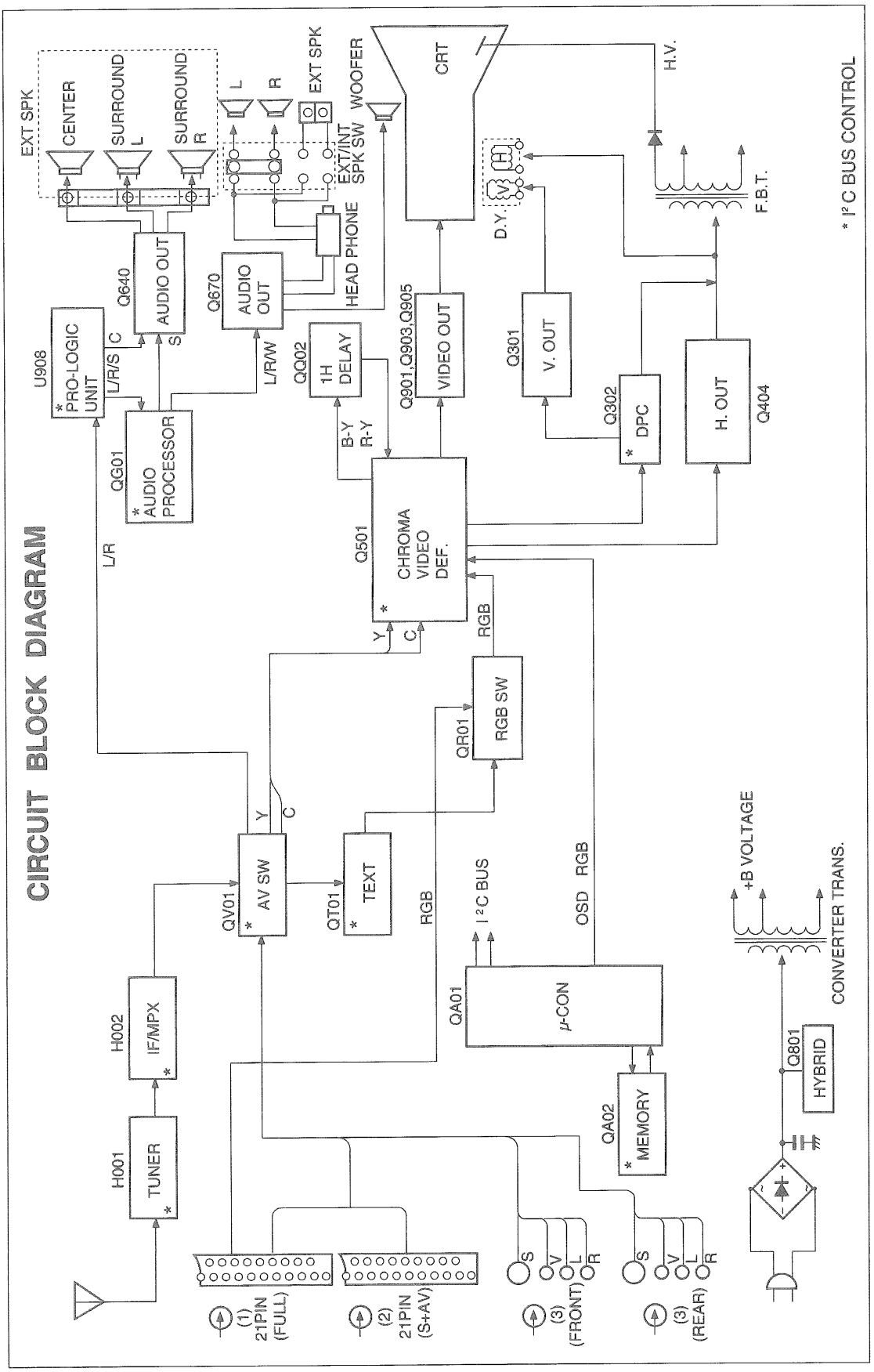
KEY ASSIGNMENT

- ⏻ ..... ON/STAND-BY
- 🔇 ..... Sound mute
- F ..... (Quick/advanced operation)
- CALL (On-screen call)/ ⓘ (index, initial) ..... TELETEXT MODE
- ◪ ..... PICTURE MENU
- ♪ ..... SOUND MENU
- I/II..... <TV MODE> ····· STEREO BILINGUAL
- 1~9, 0 ... TEN KEY
- - / - - ..... 1 or 2 place
- ⊖ ..... VIDEO INPUT (EXTERNAL INPUT SOURCE SW.)
- ◿ ..... VOLUME
- \+ ..... LEVEL PLUS (VOLUME, MENU)
- − ..... LEVEL MINUS (VOLUME, MENU)
- ▲ ..... UP (POSI., CH., TEXT PAGE)
- ▼ ..... DOWN (POSI., CH., TEXT PAGE)

TELE-TEXT
- TXT/TV..... TEXT, MIX, TV MODE SW.
- ⓘ ..... HOLD
- ⓘ ..... <TEXT MODE> ..... REVEAL / CONCEAL
- ⓘ ..... <TEXT MODE> ..... F-T-B (FULL, TOP, BOTTOM)
- ⏲/EX ..... TIME DISPLAY (TV MODE) TEXT CLEAR (TEXT MODE)
- FLOF COLOUR KEY (4 key used) Red/Green/Yellow/Blue

- ····· Super woofer
- ····· Sound mode select
- ····· Selectable picture
- ····· Selectable sound
- MENU..... TUNING & OTHER MENU
- ⊙ / ⊙ .. Menu select
- ⊖ / ⊕ .. Level down/up
- 16:9..... PIC SIZE (Picture size select)

VTR control
- ⏻ Power on/standby
- ▶ Play
- ■ Stop
- ◀◀ Rewind
- ▶▶ Fast forward


CIRCUIT BLOCK DIAGRAM
EXT SPK
CENTER
SURROUND L
SURROUND R
L
R
EXT SPK
WOOFER
EXT/INT SPK SW
HEAD PHONE
CRT
H.V.
F.B.T.
D.Y.
U908
* PRO-LOGIC UNIT
L/R/S
C
S
Q640
AUDIO OUT
Q670
AUDIO OUT
L/R/W
QQ02
1H DELAY
B-Y
R-Y
Q901,Q903,Q905
VIDEO OUT
Q301
V. OUT
Q302
* DPC
H. OUT
Q404
QG01
* AUDIO PROCESSOR
L/R
Q501
* CHROMA VIDEO DEF.
Y
C
RGB
QR01
RGB SW
QV01
* AV SW
QT01
* TEXT
RGB
I ²C BUS
OSD RGB
QA01
μ-CON
QA02
* MEMORY
H002
IF/MPX
H001
TUNER
(1) 21PIN (FULL)
(2) 21PIN (S+AV)
(3) (FRONT)
(3) (REAR)
S
V
L
R
+B VOLTAGE
CONVERTER TRANS.
Q801
HYBRID
* I²C BUS CONTROL

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

INSTALLATION AND SERVICE ADJUSTMENTS

GENERAL INFORMATIONS

All adjustments are thoroughly checked and corrected when the receiver leaves the factory. Therefore the receiver should operate normally and produce proper colour and B/W pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the receiver is operated.

This receiver is shipped completely in cardboard carton. Carefully draw out the receiver from the carton and remove all packing materials. Plug the power cord into a convenient 220 volts 50 Hz AC two pin power outlet. Turn the receiver ON. Check and adjust all the customer controls such as BRIGHTNESS, CONTRAST and COLOUR Controls to obtain natural colour or B/W picture.

AUTOMATIC DEGAUSSING

A degaussing coil is mounted around the picture tube so that external degaussing after moving the receiver is normally unnecessary, providing the receiver is properly degaussed upon installation. The degaussing coil operates for about 1 second after the power to the receiver is switched ON. If the set is moved or faced in a different direction, the power switch must be switched off at least 30 minutes in order that the automatic degaussing circuit operates properly. Should the chassis or parts of the cabinet become magnetized to cause poor colour purity, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, the sides and front of the receiver and slowly withdraw the coil to a distance of about 2 m before disconnecting it from AC source.

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST Controls to minimum (zero beam current).
3. High voltage will be measured below 29.5 kV.
4. Rotate the BRIGHTNESS Control to both extremes to be sure the high voltage does not exceed the limit of 29.5 kV under any conditions.

FOCUS ADJUSTMENT

Adjust FOCUS Control on FLYBACK TRANS. (T461) for well defined scanning lines in the centre area on the screen.,

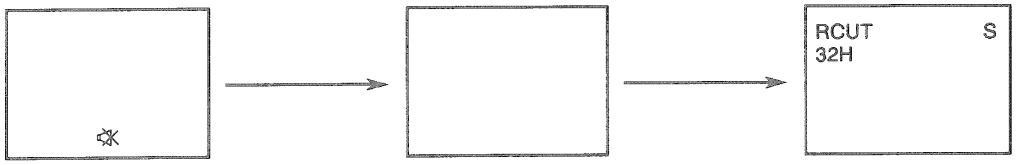
SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press ✲ button once on Remote Control.

2) Press ✲ button again to keep pressing.

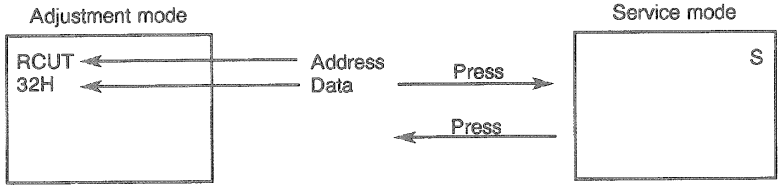
3) Keep pressing the ✲ button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

Press MENU button on TV.



3. SELECTING THE ADJUSTING ITEMS

Every pressing of CHANNEL ▲ button changes the adjustment items in the following order. (▼ button for reverse order.)

4. ADJUSTING THE DATA

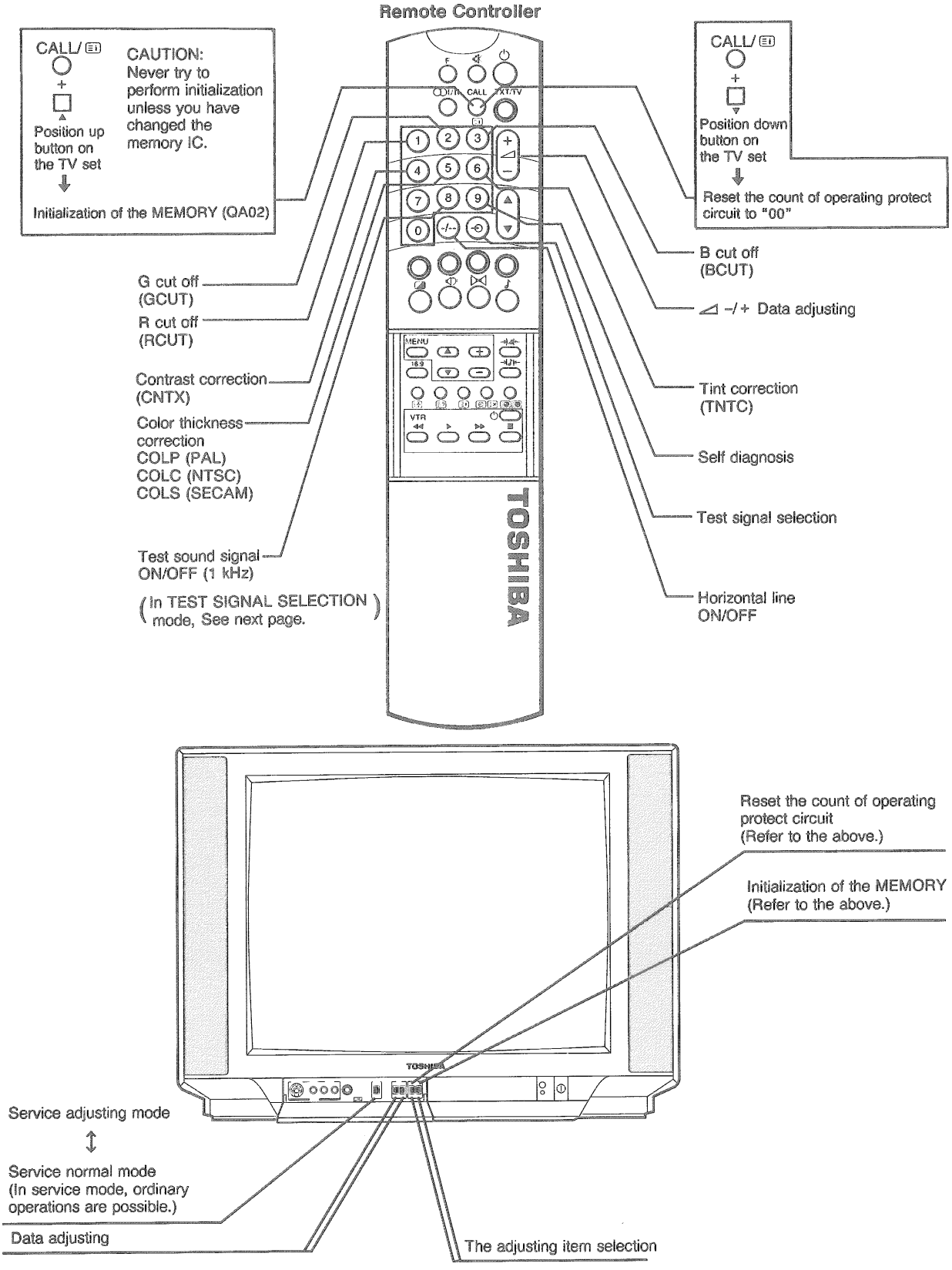
Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00 to FF. The variable range depends on the adjusting item.

5. EXIT FROM SERVICE MODE

Press POWER button to turn off the TV once.

OTHER SERVICE FUNCTION

The following key entry during display of adjustment menu provides special functions.


Remote Controller
CALL/
Position up button on the TV set
CAUTION: Never try to perform initialization unless you have changed the memory IC.
Initialization of the MEMORY (QA02)
CALL/
Position down button on the TV set
Reset the count of operating protect circuit to "00"
G cut off (GCUT)
R cut off (RCUT)
Contrast correction (CNTX)
Color thickness correction COLP (PAL) COLC (NTSC) COLS (SECAM)
Test sound signal ON/OFF (1 kHz)
(In TEST SIGNAL SELECTION mode, See next page.)
B cut off (BCUT)
-/+ Data adjusting
Tint correction (TNTC)
Self diagnosis
Test signal selection
Horizontal line ON/OFF
TOSHIBA
Reset the count of operating protect circuit (Refer to the above.)
Initialization of the MEMORY (Refer to the above.)
Service adjusting mode
Service normal mode (In service mode, ordinary operations are possible.)
Data adjusting
The adjusting item selection

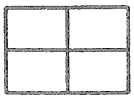
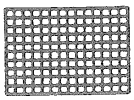
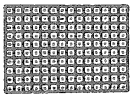
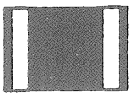
TEST SIGNAL SELECTION

Every pressing of ⊕ button changes the test patterns on screen as described below in SERVICE MODE.

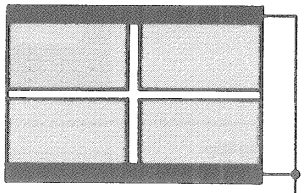
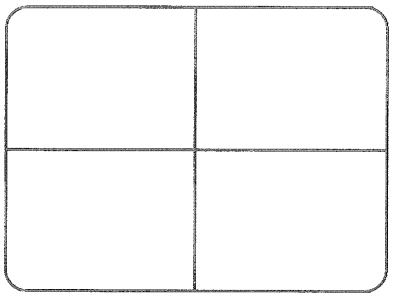
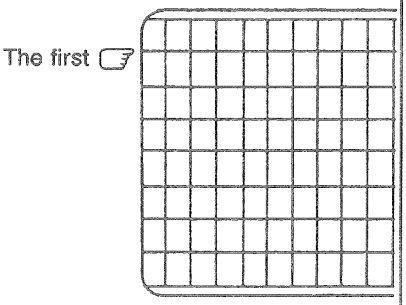
Signal off → NTSC signals (14 patterns)

↑ PAL signals (14 patterns) ←

- About inside signal: The inside signal is output at video input terminal from QA01, and is not output with the pin inserted into terminal. (Single color signal can be output.)

Signals	Picture	Using method
• Red single color • Green single color • Blue single color • Black single color • White single color		Purity and White uniformity of CRT Red single color. . . . Stopping G and B output of Q501 Green single color. . . . Stopping R and B output of Q501 Blue single color. . . . Stopping R and G output of Q501 Black single color. . . . Making black signal of approx. 1Vp-p in QA01 White single color. . . . Making white signal of approx. 1Vp-p in QA01
• W/B adjustment		White balance adjustment White part. . . . White balance adjustment/check in light area Black part. . . . White balance adjustment/check in dark area ※ Making approx. 1Vp-p signal in QA01.
• Black cross-bar • White cross-bar		Picture position (horizontal, vertical and slant) in CRT adjustment ※ Making approx. 1Vp-p signal in QA01.
• Black cross-hatch • White cross-hatch		Convergence and vertical amplitude adjustment ※ Making approx. 1Vp-p signal in QA01.
• Black cross-dot • White cross-dot		Convergence adjustment ※ Making approx. 1Vp-p signal in QA01.
• H signal (Left, right, white) • H signal (Left, right, black)		For checking (of purity drift) of white uniformity of CRT H signal (Left, right, white). . . . Check in light area H signal (Left, right, black). . . . Check in dark area The adjustment will be the best, if the time when unevenness of color in light area occurs, is a little longer than that in dark area. ※ Making approx. 1Vp-p signal in QA01.

ELECTRICAL ADJUSTMENT

ITEM	ADJUSTMENT PROCEDURE
INITIALIZATION OF QA02 (MEMORY)	After replacing QA02, the following initialization is required. 1. Call up the adjustment mode display following the steps 1 and 2 on page 10. 2. Press the CALL button on the Remote Control and CHANNEL ▲ buttons on the TV set simultaneously. The initialization of QA02 has been completed. 3. Check the picture carefully. If necessary, adjust any adjustment item. Perform "AUTOMATIC SEARCH MEMORY".
SUB-BRIGHTNESS (Address : BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the address HIT (HEIGHT).	1. Set CONTRAST to "00", and BRIGHTNESS to "50" by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ – / + button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ – / + button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ◿ – / + buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ◿ – / + buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME ◿ – / + buttons so that the first bar on cross-hatch signal touches edge of screen.  The first ☞

ITEM	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT • CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) • DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button (see pages 10, 12.). 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to 32, and to set GDRV and BDRV to 20 with VOLUME ◿ – / + buttons. 4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately. 5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ◿ – / + buttons so that three colors slightly light in the same level. ※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust. ※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. Light area check (to show white) Dark area check (to show black)

SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu.
   The diagnosis will begin to check if interface among IC's are executed properly.
2) During diagnosis, the following displays are shown.

⟨SELF CHECK⟩
① 23905593
② POWER : 00
③ BUS LINE : OK
④ BUS CONT : OK
⑤ BLOCK : UV V1 V2
QV01

① Part number of microcomputer (QA01)
② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apts to flow, and circuit parts may possibly be damaged.
③ BUS LINE CHECK ----"OK" is normal.
"SDA1–GND" means that SDA line is shorted to ground.
"SCL1–GND" means that SCL line is shorted to ground.
"SCL1–SDA1" means that SDA line is shorted to SCL line.
④ BUS CONT ----"OK" is normal.
When indication shows "QOOO NG", the device with the number may possibly be damaged.

⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (⊕ 1)
V2 : VIDEO 2 input mode (⊕ 2)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

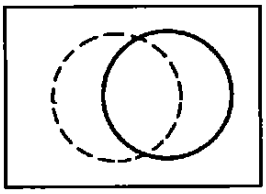
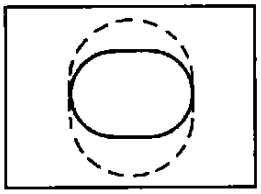
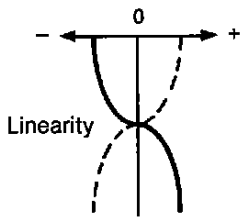
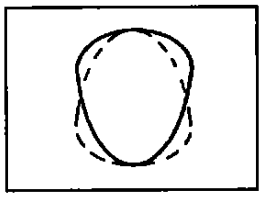
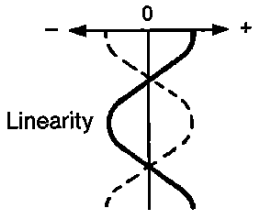
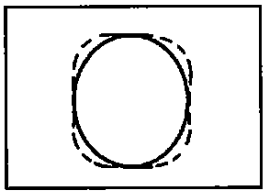
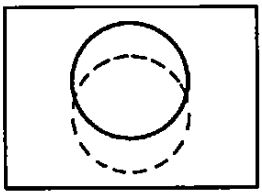
ADJUSTMENT OF VIDEO-CHROMA SYSTEM (Factory adjustment)

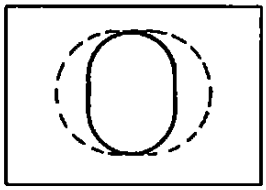
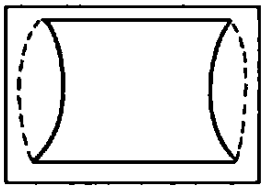
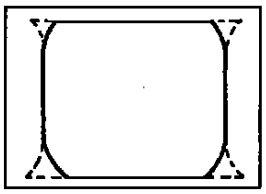
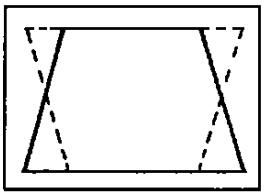
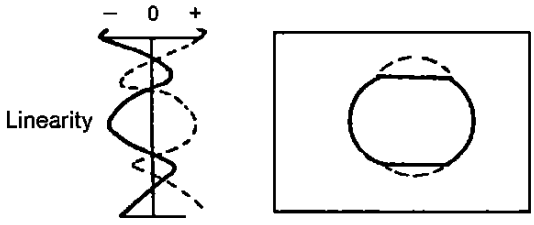
Item	Name	Setting (User control)	Input signal	Measure-ment point	Adjustment procedure	Adjustment standard
[COLP]	SUB COLOR PAL	Contrast: MAX Bright : CENTER Color : CENTER	Sub-bright signal (PAL)	IC501 #55 (TP501)	1. Select slave address 0CH [COLP]. 2. When [COLP] is selected, Y-signal is muted and only color signals are outputted. 3. Adjust amplitude of the upper half of the color bar output.	1.35V(p-p) ±0.2V(p-p)
[RCUT] [GCUT] [BCUT] Screen VR	R cut-off G cut-off B cut-off Screen	RCUT, GCUT, BCUT: 40 Hexa-decimal GDRV, BDRV: 40 Hexa-decimal Select horizontal line mode by pressing -/- - button on the remote control in service mode.		Screen adjustment	1. Set the controls as shown in the left column. 2. Gradually increase the screen VR (T461) until one of R, G or B line begins to brighten slightly. 3. Determine the position of the screen VR here. 4. Adjust RCUT, GCUT and BCUT, brighten other lines until they begin to light slightly. (Adjust DATA so that the line becomes almost white.) 5. Press -/- - button on the remote control to escape from the horizontal line mode.	—
[RCUT] [GCUT] [BCUT] [GDRV] [BDRV]	R cut-off G cut-off B cut-off G drive B drive (White balance)	Contrast: MAX Bright : CENTER Color : CENTER	White, etc.	Screen adjustment	1. This adjustment must be done after adjustment of the above-mentioned cut-off and screen VR's have been completed. 2. Adjust cut-off and drive DATA alternately. 3. Use a checker to adjust brightness by changing modulation factor.	HIGH LIGHT; (103cd/m^3) 7195K –0.005uv DARK; (17cd/m^3) 7695K ± 0uv

ADJUSTMENT OF DEFLECTION SYSTEM (Factory adjustment)

Adjustment parts or Bus control item	Input point/ Output point	Adjustment signal	Adjustment conditions and procedures
: Horizontal amplitude adjustment (WID) : Pin distortion compensation amount adjustment (PARA) : Keystone distortion compensation amount adjustment (HCP)	Visual check of picture (Bus control)	WG Philips pattern Do not use the Philips pattern of FRANCESECAM.	1. Conditions: After V. HEIGHT, VERT POSITION and H. CENT have been adjusted, set the controllers as follows: Contrast: MAX Brightness: Center Color: Center 2. Adjustment procedure a. Adjust the horizontal amplitude by the sub address WID. Adjust so that the left and right white flags of Philips pattern disappear at the very limits. b. Make the left and right vertical bars straight by the sub address PARA. c. Compensate the key distortion by the sub address HCP. d. Again, adjust the sub address WID.

SUB DATA ADDITIONAL DESCRIPTION

Symbol	Description
HPOS	H screen position correction. 
HIT	V amplitude adjustment. 
VLIN	V linearity correction 1.   Linearity balance between top and bottom screen.
VSC	V linearity correction 2.   Linearity balance between top/bottom and center.
VPOS VPS	V picture position adjustment. 

Symbol	Description
VCP	Setting of amount of V amplitude correction against variation of screen brightness.
WID	H amplitude adjustment. 
PARA	H pin-cushion distortion correction. 
CNR	H pin-cushion distortion correction at four corners. 
TRAP	Pedestal distortion correction. 
HCP	Setting of amount of H amplitude correction against variation of screen brightness.
VFC	V linearity correction. Linearity balance at 1/4, 3/4 areas from top. 

MULTI BUS E2PROM ADDRESS, ADJUSTING ADDRESS TABLE

Adjusting method	QA02 memory address	Name of item	Value of initializing QA02 (Hexa-decimal)	Adjustments
F	03H	RCUT	40H	R CUTOFF (B/W)
↓	04H	GCUT	40H	G CUTOFF (B/W)
↓	05H	BCUT	40H	B CUTOFF (B/W)
↓	06H	GDRV	40H	G DRIVE
↓	07H	BDRV	40H	B DRIVE
S	08H	CNTX	7FH	SUB CONTRAST MAX (4:3 MODE)
F	09H	BRTC	7FH	SUB BRIGHT CEN
↓	0AH	COLC	50H	SUB COLOR CEN NTSC
↓	0BH	TNTC	40H	SUB TINT CEN
↓	0CH	COLP	50H	SUB COLOR CEN PAL
↓	0DH	COLS	50H	SUB COLOR CEN SECAM
S	0EH	SCOL	8FH	SUB COLOR
↓	0FH	SCNT	7FH	SUB CONTRAST
↓	25H	VOLS	00H	VOL SCART
↓	26H	FVOL	00H	FM VOL PRE SCALE
↓	27H	NVOL	00H	NICAM VOL PRE SCALE
↓	28H	NICL	00H	NICAM THRESHOLD LEVEL
↓	29H	NICH	00H	NICAM THRESHOLD LEVEL
↓	2AH	IDL	00H	IGR THRESHOLD LEVEL
↓	2BH	IDH	00H	IGR THRESHOLD LEVEL
↓	2CH	EVOL	00H	EXT PRE. VOLUME
↓	2DH	EMX	FCH	NICAM ON LEVEL
↓	2EH	EMN	64H	NICAM OFF LEVEL
↓	2FH	FMA	00H	FM ATTENUATOR LEVEL
↓	30H	STS	00H	STEREO SEPARATION
F	31H	HPOS	15H	50Hz H-POSITION
↓	32H	VPOS	04H	V-POSITION
↓	33H	HIT	3EH	HEIGHT
↓	37H	VLIN	12H	V-LINEARITY
↓	38H	VSC	14H	V-S CORRECTION
↓	39H	VPS	0FH	V-SHIFT
↓	3AH	VCP	04H	V-COMPENSATION
F	3BH	WID	2AH	PICTURE WIDTH
F	3CH	PARA	2BH	E-W PARABOLA
S	3DH	CNR	02H	E-W CORNER
↓	3EH	TRAP	1FH	TRAPEZIUM
↓	3FH	HCP	02H	H-COMPENSATION
↓	40H	VFC	0FH	V-F CORRECTION
↓	C9H	BELL	00H	SECAM BELL FILTER
↓	CAH	SRY	08H	SECAM R-Y
↓	CBH	SBY	08H	SECAM B-Y

S ... semi-fixed data area which is fixed by model. (Do not adjust in field service.)

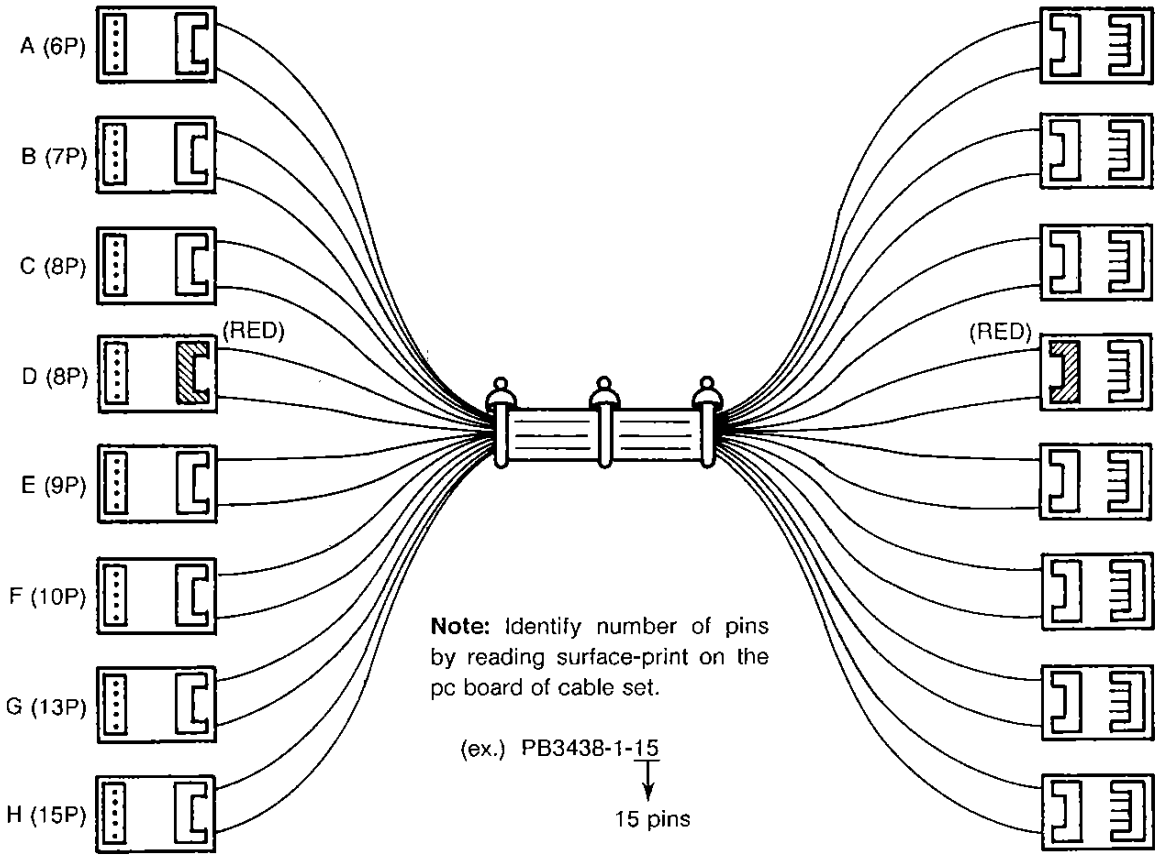
F ... This item may require adjustments by models after initialization, when QA02 is replaced.

EXTENSION CABLE SET

1. Extension Cable Set is available for servicing modules.
   For C5SS chassis, however, this cable is used only for PRO-LOGIC, TELETEXT/RGB and COMB FILTER modules. (See reference table on next page.)

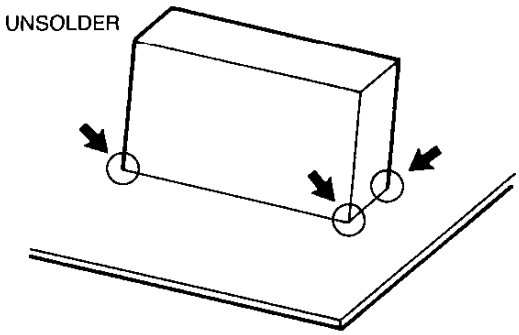
2. Identify number of pins by reading surface-print on the pc board of cable set.

Part No.	Description
23305270	Extension Cable Set

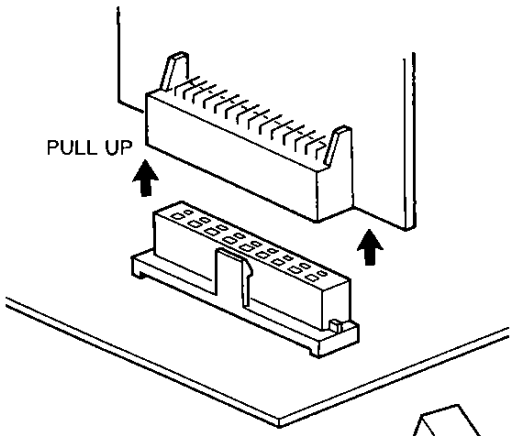


TO USE THE CABLE SET

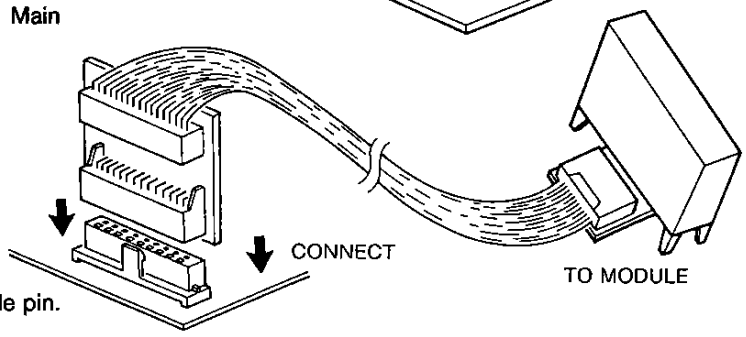
1. Unsolder corners on shielding case of module, which are marked with arrow in the figure.



2. Remove shielding case, and pull up module to disconnect.



3. Connect Extension Cable Set to module and Main board.

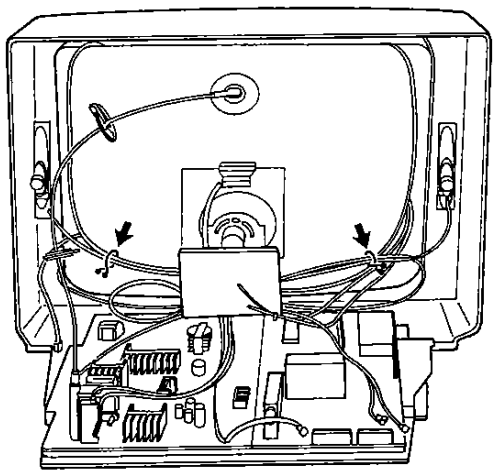


4. Reference chart of module and extension cable pin.

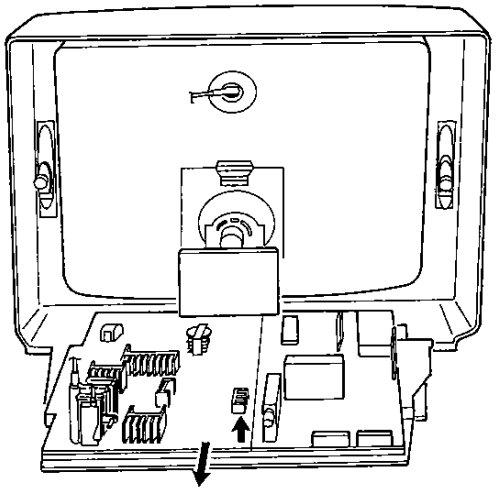
Board name	UK	FRANCE	ITALY	NORTH EUROPE/ SPAIN	GERMANY	Remarks
PRO-LOGIC	15P	15P	—	—	15P	
TELETEXT/ RGB	15P 7P	15P 7P	15P 7P	— —	15P 7P	

HOW TO MAKE THE CHASSIS STAND FOR REPAIR OF THE 2557DB

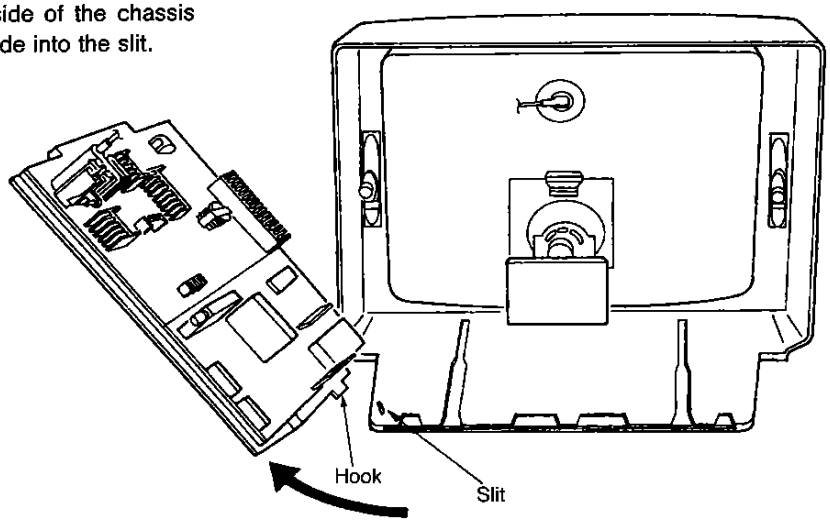
1. Disconnect the lead wires for the speaker fixed to the degausser coil with three omega clips.



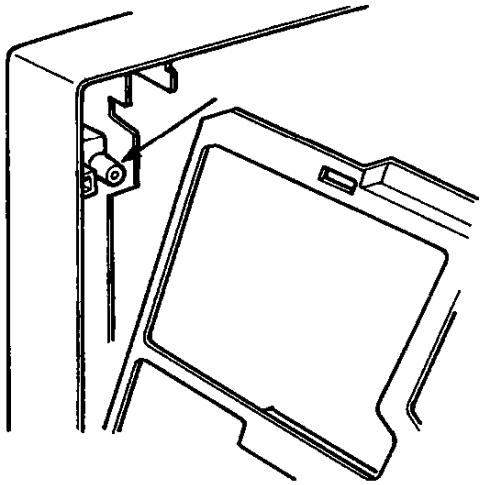
2. Lifting up slightly, pull out the chassis from the front mask.



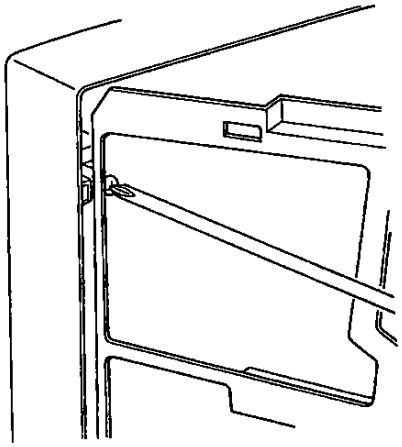
3. There is a slit at the left front of the bottom side of the front mask. Lift up the left side of the chassis and insert the hook at the right side into the slit.



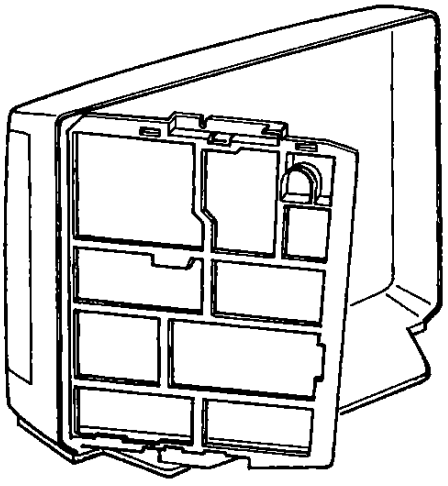
4. To retain the chassis, use the upper left boss (highest boss) which is marked with No. 29.



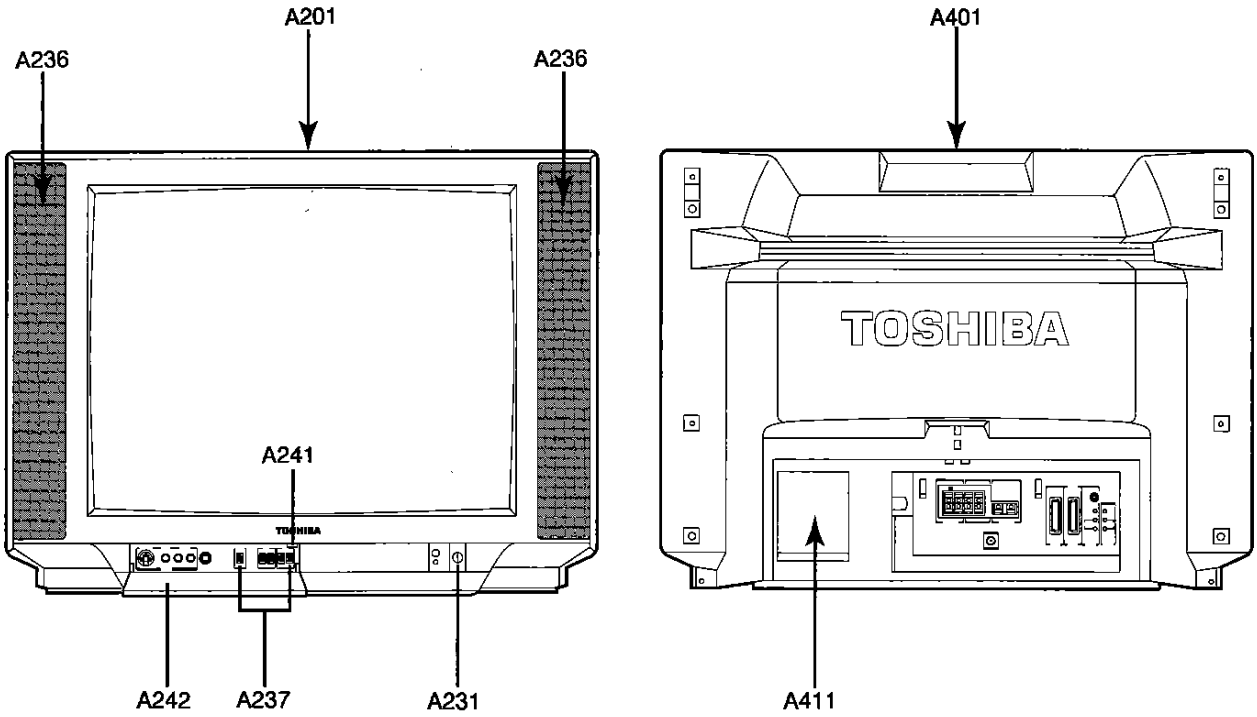
5. Fix it with screws for back cover fixing.
   Upper hole of the chassis frame.



6. After repair works, restore the unit by reversing the above steps.



CABINET REPLACEMENT PARTS LIST



Location No.	Part No.	Description
A201	23410809	Front Cover
A231	23443960	Button, POWER
A236	23519490	Speaker Grille
A237	23443966	Button, CONTROL
A241	70368125	Push Catch for Door
A242	23426566	Door
A340	23410676	SP Box (Front)
A341	23426411	SP Box (Back)
A343	23948114	Wire Assy, Speaker
A401	23426906	Back Cover
A411	23569898	Label, Model No.

CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

CAUTION: The international hazard symbols " ⚠ " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

ABBREVIATIONS:

Capacitors.....	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors.....	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS		
C101	24797229	EL, 2.2μF, ±20%, 50V
C102	24763221	EL, 220μF, ±20%, 16V
C103	24232103	CD, 0.01μF, +80%, −20%
C104	24794470	EL, 47μF, ±20%, 16V
C105	24212102	CD, 1000pF, ±10%
C106	24797100	EL, 10μF, ±20%, 50V
C107	24763221	EL, 220μF, ±20%, 16V
C108	24763101	EL, 100μF, ±20%, 16V
C115	24232103	CD, 0.01μF, +80%, −20%
C116	24763221	EL, 220μF, ±20%, 16V
C190	24474102	CD, 1000pF, ±10%
C201	24206100	EL, 10μF, 50V
C203	24538104	PF, 0.1μF
C204	24206010	EL, 1μF, 50V
C205	24206229	EL, 2.2μF, 50V
C206	24206100	EL, 10μF, 50V
C207	24436270	CD, 27pF
C208	24436270	CD, 27pF
C209	24436270	CD, 27pF
C212	24794100	EL, 10μF, ±20%, 16V
C213	24436820	CD, 82pF
C214	24538334	PF, 0.33μF
C303	24214471	CD, 470pF, ±10%, 500V
C305	24617912	EL, 2.2μF, ±10%, 50V
C306	24073060	EL, 4700μF, ±20%, 25V
C307	24693473	PF, 0.047μF, 100V
C308	24668221	EL, 220μF, ±20%, 35V
C309	24591102	PF, 1000pF
C310	24796222	EL, 2200μF, ±20%, 35V
C311	24214561	CD, 560pF, ±10%, 500V
C313	24082057	PF, 0.22μF, 100V
C314	24591563	PF, 0.056μF
C315	24797229	EL, 2.2μF, ±20%, 50V
C316	24539104	PF, 0.1μF
C318	24666101	EL, 100μF, ±20%, 16V
C319	24212102	CD, 1000pF, ±10%
C320	24668101	EL, 100μF, ±20%, 35V
C321	24591203	PF, 0.02μF
C322	24617912	EL, 2.2μF, ±10%, 50V
C323	24538224	PF, 0.22μF
C324	24538683	PF, 0.068μF
C326	24591682	PF, 6800pF
C327	24617787	EL, 470μF, ±20%, 16V
C328	24232103	CD, 0.01μF, +80%, −20%
C330	24212102	CD, 1000pF, ±10%
C341	24797478	EL, 0.47μF, ±20%, 50V
C370	24794101	EL, 100μF, ±20%, 16V
C371	24794100	EL, 10μF, ±20%, 16V
C401	24538104	PF, 0.1μF
C403	24591203	PF, 0.02μF
C404	24797229	EL, 2.2μF, ±20%, 50V
C413	24214821	CD, 820pF, ±10%, 500V
C415	24591392	PF, 3900pF
C416	24678010	EL, 1μF, ±20%, 200V
C417	24214391	CD, 390pF, ±10%, 500V
C420	24666101	EL, 100μF, ±20%, 16V
C423	24829823	PF, 0.082μF, 400V
C430	24232103	CD, 0.01μF, +80%, −20%
C431	24794471	EL, 470μF, ±20%, 16V
⚠C440	24082810	PF, 7200pF, ±3%, 1500V
C441	24082669	PF, 0.33μF, 250V
C442	24082672	PF, 0.43μF, 250V
C444	24082519	PF, 6200pF, ±3%, 1800V
C445	24828473	PF, 0.047μF, 200V
C446	24679330	EL, 33μF, ±20%, 250V
C448	24640908	EL, 33μF, ±20%, 160V
C460	24796331	EL, 330μF, ±20%, 35V
⚠C463	24212222	CD, 2200pF, ±10%
C464	24676339	EL, 3.3μF, ±20%, 100V
C467	24095881	PF, 0.018μF, ±3%, 630V
C470	24794220	EL, 22μF, ±20%, 16V
C472	24538474	PF, 0.47μF
C473	24669010	EL, 1μF, ±20%, 50V
C475	24095887	PF, 0.01μF, ±3%, 630V
C477	24590563	PF, 0.056μF
C478	24590563	PF, 0.056μF
C481	24538104	PF, 0.1μF
C491	24082721	PF, 1.5μF, 250V
C492	24082672	PF, 0.43μF, 250V
C494	24214121	CD, 120pF, ±10%, 500V
C498	24436270	CD, 27pF

Location No.	Part No.	Description
C501	24232103	CD, 0.01μF, +80%, −20%
C502	24232103	CD, 0.01μF, +80%, −20%
C503	24763101	EL, 100μF, ±20%, 16V
C504	24591222	PF, 2200pF
C505	24353120	CD, 12pF
C507	24353120	CD, 12pF
C508	24206100	EL, 10μF, 50V
C509	24763101	EL, 100μF, ±20%, 16V
C510	24763101	EL, 100μF, ±20%, 16V
C511	24232103	CD, 0.01μF, +80%, −20%
C512	24206228	EL, 0.22μF, 50V
C513	24232103	CD, 0.01μF, +80%, −20%
C514	24538104	PF, 0.1μF
C515	24538104	PF, 0.1μF
C517	24353010	CD, 1pF, ±0.25pF
C519	24353010	CD, 1pF, ±0.25pF
C520	24212102	CD, 1000pF, ±10%
C521	24212102	CD, 1000pF, ±10%
C522	24436470	CD, 47pF
C523	24436470	CD, 47pF
C613	24794470	EL, 47μF, ±20%, 16V
C641	24206010	EL, 1μF, 50V
C644	24206010	EL, 1μF, 50V
C645	24795470	EL, 47μF, ±20%, 25V
C646	24795470	EL, 47μF, ±20%, 25V
C647	24591102	PF, 1000pF
C648	24590682	PF, 6800pF
C649	24206229	EL, 2.2μF, 50V
C650	24796102	EL, 1000μF, ±20%, 35V
C651	24668471	EL, 470μF, ±20%, 35V
C652	24668471	EL, 470μF, ±20%, 35V
C653	24795470	EL, 47μF, ±20%, 25V
C654	24591124	PF, 0.12μF
C655	24591124	PF, 0.12μF
C660	24206229	EL, 2.2μF, 50V
C661	24538104	PF, 0.1μF
C663	24206229	EL, 2.2μF, 50V
C664	24203100	EL, 10μF, ±20%, 16V
C665	24206229	EL, 2.2μF, 50V
C666	24206229	EL, 2.2μF, 50V
C667	24212102	CD, 1000pF, ±10%
C668	24212102	CD, 1000pF, ±10%
C671(U902A)	24797010	EL, 1μF, ±20%, 50V
C671(U904)	24232103	CD, 0.01μF, +80%, −20%
C672	24232103	CD, 0.01μF, +80%, −20%
C673(U904)	24474102	CD, 1000pF, ±10%
C673(U902A)	24797010	EL, 1μF, ±20%, 50V
C674(U904)	24474102	CD, 1000pF, ±10%
C674(U902A)	24797010	EL, 1μF, ±20%, 50V
C675(U902A)	24795470	EL, 47μF, ±20%, 25V
C675(U904)	24474102	CD, 1000pF, ±10%
C676(U902A)	24797479	EL, 4.7μF, ±20%, 50V
C676(U904)	24474102	CD, 1000pF, ±10%
C677(U902A)	24591102	PF, 1000pF
C677(U904)	24232103	CD, 0.01μF, +80%, −20%
C678(U902A)	24591102	PF, 1000pF
C678(U904)	24474102	CD, 1000pF, ±10%
C679(U902A)	24538104	PF, 0.1μF
C679(U904)	24474102	CD, 1000pF, ±10%
C680(U902A)	24668102	EL, 1000μF, ±20%, 35V
C680(U904)	24232103	CD, 0.01μF, +80%, −20%
C681(U902A)	24668471	EL, 470μF, ±20%, 35V
C681(U904)	24474102	CD, 1000pF, ±10%
C682(U904)	24474102	CD, 1000pF, ±10%

Location No.	Part No.	Description
C682(U902A)	24668471	EL, 470μF, ±20%, 35V
C683	24668102	EL, 1000μF, ±20%, 35V
C684	24591124	PF, 0.12μF
C685	24591124	PF, 0.12μF
C686	24591124	PF, 0.12μF
C688	24203220	EL, 22μF, ±20%, 16V
C689	24206010	EL, 1μF, 50V
⚠C801	24082374	PF, 0.22μF, AC250V
⚠C805	24092281	CD, 4700pF, ±20%, AC250V
⚠C806	24092281	CD, 4700pF, ±20%, AC250V
C808	24667331	EL, 330μF, ±20%, 25V
C809	24214471	CD, 470pF, ±10%, 500V
C810	24086873	EL, 330μF, ±20%, 400V
⚠C813	24094656	CD, 2200pF, ±20%, AC400V
⚠C814	24094656	CD, 2200pF, ±20%, AC400V
C816	24669221	EL, 220μF, ±20%, 50V
C817	24092341	CD, 470pF, ±10%, 2kV
C818	24095931	PF, 2200pF, 1250V
C819	24676220	EL, 22μF, ±20%, 100V
C821	24214471	CD, 470pF, ±10%, 500V
C829	24590182	PF, 1800pF
C831	24669470	EL, 47μF, ±20%, 50V
C833	24669100	EL, 10μF, ±20%, 50V
C841	24669100	EL, 10μF, ±20%, 50V
C842	24669100	EL, 10μF, ±20%, 50V
C843	24590104	PF, 0.1μF
C846	24590104	PF, 0.1μF
C884	24086916	EL, 330μF, ±20%, 160V
C885	24214471	CD, 470pF, ±10%, 500V
C887	24214471	CD, 470pF, ±10%, 500V
C889	24668332	EL, 3300μF, ±20%, 35V
C892	24667222	EL, 2200μF, ±20%, 25V
C893	24092337	CD, 220pF, ±10%, 2kV
C895	24669470	EL, 47μF, ±20%, 50V
C896	24214471	CD, 470pF, ±10%, 500V
C897	24666222	EL, 2200μF, ±20%, 16V
C898	24212101	CD, 100pF, ±10%
C899	24214471	CD, 470pF, ±10%, 500V
C902	24092353	CD, 4700pF, ±10%, 2kV
C904	24436271	CD, 270pF
C905	24436271	CD, 270pF
C907	24436271	CD, 270pF
C909	24679220	EL, 22μF, ±20%, 250V
C910	24797478	EL, 0.47μF, ±20%, 50V
C911	24203100	EL, 10μF, ±20%, 16V
C912	24794102	EL, 1000μF, ±20%, 16V
C913	24763102	EL, 1000μF, ±20%, 16V
C914	24212103	CD, 0.01μF, ±10%
C920	24591104	PF, 0.1μF
C921	24591104	PF, 0.1μF
C930	24214101	CD, 100pF, ±10%, 500V
C931	24214101	CD, 100pF, ±10%, 500V
CA13	24212101	CD, 100pF, ±10%
CA22	24212101	CD, 100pF, ±10%
CA23	24212101	CD, 100pF, ±10%
CA24	24212101	CD, 100pF, ±10%
CA25	24212101	CD, 100pF, ±10%
CA30	24212101	CD, 100pF, ±10%
CA33	24232103	CD, 0.01μF, +80%, −20%
CA37	24212101	CD, 100pF, ±10%
CA38	24212101	CD, 100pF, ±10%
CA42	24794100	EL, 10μF, ±20%, 16V
CA43	24232103	CD, 0.01μF, +80%, −20%
CA44	24232103	CD, 0.01μF, +80%, −20%

Location No.	Part No.	Description
CA68	24794100	EL, 10μF, ±20%, 16V
CA69	24232103	CD, 0.01μF, +80%, -20%
CB01	24794470	EL, 47μF, ±20%, 16V
CD01	24781330	Chip, 33pF, SL
CD02	24590332	PF, 3300pF
CD03	24590332	PF, 3300pF
CD04	24781330	Chip, 33pF, SL
CD05	24203100	EL, 10μF, ±20%, 16V
CD06	24203100	EL, 10μF, ±20%, 16V
CD07	24203100	EL, 10μF, ±20%, 16V
CD08	24203100	EL, 10μF, ±20%, 16V
CD09	24203100	EL, 10μF, ±20%, 16V
CD10	24203100	EL, 10μF, ±20%, 16V
CD11	24203100	EL, 10μF, ±20%, 16V
CD12	24203100	EL, 10μF, ±20%, 16V
CD13	24085988	EL, 1μF, ±20%, 50V, Non-Polar
CD14	24085988	EL, 1μF, ±20%, 50V, Non-Polar
CD15	24763101	EL, 100μF, ±20%, 16V
CD16	24203100	EL, 10μF, ±20%, 16V
CD17	24538104	PF, 0.1μF
CD18	24815682	Chip, 6800pF, +80%, -20%, F
CD19	24815682	Chip, 6800pF, +80%, -20%, F
CD20	24781221	Chip, 220pF, SL
CD21	24590682	PF, 6800pF
CD22	24781391	Chip, 390pF, SL
CD23	24781101	Chip, 100pF, SL
CD24	24206010	EL, 1μF, 50V
CD25	24590272	PF, 2700pF
CD26	24781330	Chip, 33pF, SL
CD27	24590682	PF, 6800pF
CD28	24781391	Chip, 390pF, SL
CD29	24590272	PF, 2700pF
CD30	24203100	EL, 10μF, ±20%, 16V
CD31	24781330	Chip, 33pF, SL
CD32	24781101	Chip, 100pF, SL
CD33	24206010	EL, 1μF, 50V
CD34	24590272	PF, 2700pF
CD35	24590682	PF, 6800pF
CD36	24781391	Chip, 390pF, SL
CD37	24781680	Chip, 68pF, SL
CD38	24203100	EL, 10μF, ±20%, 16V
CD39	24203100	EL, 10μF, ±20%, 16V
CD40	24206229	EL, 2.2μF, 50V
CD41	24203100	EL, 10μF, ±20%, 16V
CD42	24206229	EL, 2.2μF, 50V
CD43	24203100	EL, 10μF, ±20%, 16V
CD44	24590154	PF, 0.15μF
CD45	24203100	EL, 10μF, ±20%, 16V
CD46	24781680	Chip, 68pF, SL
CD47	24203100	EL, 10μF, ±20%, 16V
CD48	24781101	Chip, 100pF, SL
CD49	24203100	EL, 10μF, ±20%, 16V
CD50	24203100	EL, 10μF, ±20%, 16V
CD51	24781680	Chip, 68pF, SL
CD52	24203100	EL, 10μF, ±20%, 16V
CD53	24763471	EL, 470μF, ±20%, 16V
CD54	24781101	Chip, 100pF, SL
CD55	24206010	EL, 1μF, 50V
CD56	24206010	EL, 1μF, 50V
CD57	24206010	EL, 1μF, 50V
CD58	24203100	EL, 10μF, ±20%, 16V
CD59	24591273	PF, 0.027μF

Location No.	Part No.	Description
CD60	24591822	PF, 8200pF
CD61	24206010	EL, 1μF, 50V
CD62	24092293	Chip, 0.1μF, +80%,-20%, 25V
CD63	24092293	Chip, 0.1μF, +80%,-20%, 25V
CD64	24092293	Chip, 0.1μF, +80%,-20%, 25V
CD65	24206010	EL, 1μF, 50V
CD66	24203100	EL, 10μF, ±20%, 16V
CD67	24781330	Chip, 33pF, SL
CD68	24781330	Chip, 33pF, SL
CD69	24205479	EL, 4.7μF, ±20%, 35V
CD70	24092293	Chip, 0.1μF, +80%,-20%, 25V
CD71	24538104	PF, 0.1μF
CD72	24762221	EL, 220μF, ±20%, 10V
CD73	24762221	EL, 220μF, ±20%, 10V
CD74	24538104	PF, 0.1μF
CD75	24781102	Chip, 1000pF, SL
CD76	24203100	EL, 10μF, ±20%, 16V
CD77	24814103	Chip, 0.01μF, +80%, -20%
CD78	24763101	EL, 100μF, ±20%, 16V
CD79	24814103	Chip, 0.01μF, +80%, -20%
CD80	24202101	EL, 100μF, 10V
CD81	24781221	Chip, 220pF, SL
CD82	24203100	EL, 10μF, ±20%, 16V
CD83	24814103	Chip, 0.01μF, +80%, -20%
CG01	24538224	PF, 0.22μF
CG02	24590104	PF, 0.1μF
CG03	24590104	PF, 0.1μF
CG04	24206010	EL, 1μF, 50V
CG05	24203220	EL, 22μF, ±20%, 16V
CG06	24232103	CD, 0.01μF, +80%, -20%
CG07	24206010	EL, 1μF, 50V
CG08	24206010	EL, 1μF, 50V
CG09	24206010	EL, 1μF, 50V
CG10	24232103	CD, 0.01μF, +80%, -20%
CG11	24232103	CD, 0.01μF, +80%, -20%
CG12	24590273	PF, 0.027μF
CG13	24232103	CD, 0.01μF, +80%, -20%
CG14	24203101	EL, 100μF, ±20%, 16V
CG15	24590822	PF, 8200pF
CG16	24206010	EL, 1μF, 50V
CG17	24590273	PF, 0.027μF
CG18	24590822	PF, 8200pF
CG21	24590273	PF, 0.027μF
CG22	24206010	EL, 1μF, 50V
CG23	24590822	PF, 8200pF
CG24	24206100	EL, 10μF, 50V
CG25	24212102	CD, 1000pF, ±10%
CG26	24206100	EL, 10μF, 50V
CG27	24206229	EL, 2.2μF, 50V
CG28	24206229	EL, 2.2μF, 50V
CG41	24203470	EL, 47μF, ±20%, 16V
CQ19	24590103	PF, 0.01μF
CQ20	24538104	PF, 0.1μF
CQ21	24794470	EL, 47μF, ±20%, 16V
CQ22	24232103	CD, 0.01μF, +80%, -20%
CQ23	24538104	PF, 0.1μF
CQ24	24538104	PF, 0.1μF
CQ25	24797100	EL, 10μF, ±20%, 50V
CQ26	24538104	PF, 0.1μF
CQ27	24538104	PF, 0.1μF
CQ28	24797478	EL, 0.47μF, ±20%, 50V
CQ29	24794101	EL, 100μF, ±20%, 16V
CQ30	24232103	CD, 0.01μF, +80%, -20%
CQ31	24797478	EL, 0.47μF, ±20%, 50V

Location No.	Part No.	Description
CQ32	24590103	PF, 0.01μF
CQ33	24538104	PF, 0.1μF
CQ34	24538104	PF, 0.1μF
CQ35	24206478	EL, 0.47μF, 50V
CQ36	24206478	EL, 0.47μF, 50V
CQ37	24797010	EL, 1μF, ±20%, 50V
CQ38	24797010	EL, 1μF, ±20%, 50V
CQ39	24797010	EL, 1μF, ±20%, 50V
CR01	24538104	PF, 0.1μF
CR02	24538104	PF, 0.1μF
CR03	24538104	PF, 0.1μF
CR05	24232103	CD, 0.01μF, +80%, −20%
CR06	24666100	EL, 10μF, ±20%, 16V
CR12(U907)	24666100	EL, 10μF, ±20%, 16V
CR12(U902A)	24538104	PF, 0.1μF
CR13	24538104	PF, 0.1μF
CR14	24538104	PF, 0.1μF
CS01	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS02	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS03	24206229	EL, 2.2μF, 50V
CS04	24206229	EL, 2.2μF, 50V
CS05	24206229	EL, 2.2μF, 50V
CS06	24206229	EL, 2.2μF, 50V
CS07	24206229	EL, 2.2μF, 50V
CS08	24206229	EL, 2.2μF, 50V
CS09	24206010	EL, 1μF, 50V
CS12	24474102	CD, 1000pF, ±10%
CS13	24474102	CD, 1000pF, ±10%
CS14	24206100	EL, 10μF, 50V
CS15	24206100	EL, 10μF, 50V
CS17	24666100	EL, 10μF, ±20%, 16V
CS18	24666100	EL, 10μF, ±20%, 16V
CS19	24206478	EL, 0.47μF, 50V
CS22	24666100	EL, 10μF, ±20%, 16V
CS23	24666100	EL, 10μF, ±20%, 16V
CS181	24797010	EL, 1μF, ±20%, 50V
CS182	24797010	EL, 1μF, ±20%, 50V
CT01	24590104	PF, 0.1μF
CT02	24353080	CD, 8pF, ±0.25pF
CT03	24353150	CD, 15pF
CT04	24212102	CD, 1000pF, ±10%
CT05	24590104	PF, 0.1μF
CT06	24590104	PF, 0.1μF
CT07	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CT08	24232103	CD, 0.01μF, +80%, −20%
CT09	24794101	EL, 100μF, ±20%, 16V
CT10	24436220	CD, 22pF
CT11	24794101	EL, 100μF, ±20%, 16V
CT12	24590104	PF, 0.1μF
CT13	24794100	EL, 10μF, ±20%, 16V
CT14	24794100	EL, 10μF, ±20%, 16V
CT16	24436220	CD, 22pF
CT17	24232103	CD, 0.01μF, +80%, −20%
CV01	24590473	PF, 0.047μF
CV02	24666100	EL, 10μF, ±20%, 16V
CV03	24666100	EL, 10μF, ±20%, 16V
CV04	24666100	EL, 10μF, ±20%, 16V
CV05	24232103	CD, 0.01μF, +80%, −20%
CV06	24666100	EL, 10μF, ±20%, 16V
CV08	24763102	EL, 1000μF, ±20%, 16V
CV09	24666100	EL, 10μF, ±20%, 16V

Location No.	Part No.	Description
CV10	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV12	24232103	CD, 0.01μF, +80%, −20%
CV13	24232103	CD, 0.01μF, +80%, −20%
CV14	24474102	CD, 1000pF, ±10%
CV15	24474102	CD, 1000pF, ±10%
CV23	24666101	EL, 100μF, ±20%, 16V
CV24	24232103	CD, 0.01μF, +80%, −20%
CV25	24763471	EL, 470μF, ±20%, 16V
CV35	24212102	CD, 1000pF, ±10%
CV37	24474102	CD, 1000pF, ±10%
CV39	24666101	EL, 100μF, ±20%, 16V
CV40	24232103	CD, 0.01μF, +80%, −20%
CV42	24206229	EL, 2.2μF, 50V
CV46	24212332	CD, 3300pF, ±10%
CV47	24212332	CD, 3300pF, ±10%
CV48	24212102	CD, 1000pF, ±10%
CV50	24232103	CD, 0.01μF, +80%, −20%
CV65	24203101	EL, 100μF, ±20%, 16V
CV68	24763471	EL, 470μF, ±20%, 16V
CV71	24763471	EL, 470μF, ±20%, 16V
CV72	24766101	PF, 0.1μF
CV73	24212103	CD, 0.01μF, ±10%
CV77	24666100	EL, 10μF, ±20%, 16V
CZ37	24092398	CD, 0.1μF, +80%,−20%
CZ38	24092398	CD, 0.1μF, +80%,−20%

RESISTORS

R101	24382223	OMF, 22k ohm, 1W
R201	24366821	CF, 820 ohm
R202	24366821	CF, 820 ohm
R203	24366471	CF, 470 ohm
R204	24366104	CF, 100k ohm
R207	24366101	CF, 100 ohm
R208(U902A)	24366101	CF, 100 ohm
R208(U903)	24366103	CF, 10k ohm
R209(U902A)	24366101	CF, 100 ohm
R209(U903)	24366103	CF, 10k ohm
R211	24366183	CF, 18k ohm
R212	24366472	CF, 4700 ohm
R213	24366122	CF, 1200 ohm
R214	24366222	CF, 2200 ohm
R215	24366102	CF, 1k ohm
R216	24366103	CF, 10k ohm
R217	24366102	CF, 1k ohm
R218	24367113	CF, 11k ohm, ±2%
R220	24366102	CF, 1k ohm
R221	24366102	CF, 1k ohm
R223	24366102	CF, 1k ohm
R224	24366271	CF, 270 ohm
R225	24366100	CF, 10 ohm
R226	24366223	CF, 22k ohm
R227(U903)	24367822	CF, 8200 ohm, ±2%
R227(U902A)	24366223	CF, 22k ohm
R228	24366104	CF, 100k ohm
R233	24366120	CF, 12 ohm
R241	24366102	CF, 1k ohm
R301	24366102	CF, 1k ohm
R303	24321159	MF, 1.5 ohm, 1/2W
R304	24366393	CF, 39k ohm
R305	24322568	MF, 0.56 ohm, 1W
R306	24366823	CF, 82k ohm
R307	24366364	CF, 360k ohm
R310	24382471	OMF, 470 ohm, 1W

Location No.	Part No.	Description
R311	24366392	CF, 3900 ohm
R312	24366153	CF, 15k ohm
R313	24366623	CF, 62k ohm
R314	24366105	CF, 1M ohm
R315	24366105	CF, 1M ohm
R316	24366154	CF, 150k ohm
R318	24366101	CF, 100 ohm
R319	24366101	CF, 100 ohm
R320	24366101	CF, 100 ohm
R326	24366204	CF, 200k ohm
⚠R327	24339339	MF, 3.3 ohm, 2W
R329	24366223	CF, 22k ohm
R330	24366102	CF, 1k ohm
R331	24366104	CF, 100k ohm
R336	24383331	OMF, 330 ohm, 2W
R341	24366153	CF, 15k ohm
R343	24366153	CF, 15k ohm
R370	24321109	MF, 1 ohm, 1/2W
R371	24366562	CF, 5600 ohm
R372	24366392	CF, 3900 ohm
R373	24366182	CF, 1800 ohm
R374	24366153	CF, 15k ohm
R401	24366391	CF, 390 ohm
R402	24366103	CF, 10k ohm
R403	24366302	CF, 3k ohm
R405	24553682	OMF, 6800 ohm, 1W
R407	24366103	CF, 10k ohm
R410	24366331	CF, 330 ohm
R411	24366331	CF, 330 ohm
R413	24366682	CF, 6800 ohm
R415	24553272	OMF, 2700 ohm, 1W
R416	24510562	Cement, 5600 ohm, 5W
R425	24552332	OMF, 3300 ohm, 1/2W
R426	24366821	CF, 820 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24552560	OMF, 56 ohm, 1/2W
R432	24531560	FR, 56 ohm, 1/2W
R433	24366472	CF, 4700 ohm
R441	24532102	FR, 1k ohm, 1W
R442	24533151	FR, 150 ohm, 2W
R460	24552332	OMF, 3300 ohm, 1/2W
R461	24552242	OMF, 2400 ohm, 1/2W
R463	24323229	MF, 2.2 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366114	CF, 110k ohm
R466	24366562	CF, 5600 ohm
R469	24000211	FR, 15 ohm, 1/2W
R470	24338568	MF, 0.56 ohm, 1W
R471	24531271	FR, 270 ohm, 1/2W
R473	24366184	CF, 180k ohm
R474	24366184	CF, 180k ohm
R478	24376333	CF, 33k ohm, 1/2W
R479	24531121	FR, 120 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366223	CF, 22k ohm
R482	24366223	CF, 22k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R501	24366223	CF, 22k ohm
R502	24366101	CF, 100 ohm
R503	24366101	CF, 100 ohm
R505	24366102	CF, 1k ohm
R506	24366103	CF, 10k ohm

Location No.	Part No.	Description
R508	24366102	CF, 1k ohm
R509	24366102	CF, 1k ohm
R510	24366102	CF, 1k ohm
R511	24366101	CF, 100 ohm
R512	24366101	CF, 100 ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R640	24366222	CF, 2200 ohm
R641	24366182	CF, 1800 ohm
R642	24366222	CF, 2200 ohm
R643	24366562	CF, 5600 ohm
R644	24366473	CF, 47k ohm
R645	24366229	CF, 2.2 ohm
R646	24366223	CF, 22k ohm
R647	24366223	CF, 22k ohm
R648	24366229	CF, 2.2 ohm
R660	24510159	Cement, 1.5 ohm, 5W
R661(U902A)	24552221	OMF, 220 ohm, 1/2W
R661(U903)	24510159	Cement, 1.5 ohm, 5W
R662	24552221	OMF, 220 ohm, 1/2W
R670	24366272	CF, 2700 ohm
R671(U904)	24366102	CF, 1k ohm
R671(U902A)	24366222	CF, 2200 ohm
R672(U904)	24366102	CF, 1k ohm
R672(U902A)	24366272	CF, 2700 ohm
R673(U904)	24366102	CF, 1k ohm
R673(U902A)	24366222	CF, 2200 ohm
R674	24366332	CF, 3300 ohm
R675(U904)	24366102	CF, 1k ohm
R675(U902A)	24366472	CF, 4700 ohm
R676(U904)	24366223	CF, 22k ohm
R676(U902A)	24366223	CF, 22k ohm
R677(U904)	24366223	CF, 22k ohm
R677(U902A)	24366223	CF, 22k ohm
R678	24366223	CF, 22k ohm
R679	24366223	CF, 22k ohm
R680(U904)	24366223	CF, 22k ohm
R680(U902A)	24366473	CF, 47k ohm
R681	24366223	CF, 22k ohm
R682	24366104	CF, 100k ohm
R683	24366273	CF, 27k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R686	24366229	CF, 2.2 ohm
R688	24366222	CF, 2200 ohm
R689	24366104	CF, 100k ohm
R690(U904)	24366681	CF, 680 ohm
R690(U902A)	24366223	CF, 22k ohm
R691	24366681	CF, 680 ohm
R692	24366681	CF, 680 ohm
R693	24366681	CF, 680 ohm
⚠R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W
R803	24382683	OMF, 68k ohm, 1W
R805	24366101	CF, 100 ohm
R806	24552392	OMF, 3900 ohm, 1/2W
R808	24019340	PTC Thermistor, 18 ohm, 290V
R810	24007489	Cement, 3 ohm, 20W
R811	24568271	Cement, 270 ohm, 7W
R814	24366122	CF, 1200 ohm
R815	24552102	OMF, 1k ohm, 1/2W
R816	24382100	OMF, 10 ohm, 1W

Location No.	Part No.	Description
R818	24322228	MF, 0.22 ohm, 1W
R819	24321829	MF, 8.2 ohm, 1/2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24366272	CF, 2700 ohm
R824	24569689	Cement, 6.8 ohm, 10W
R827	24366681	CF, 680 ohm
R828	24366821	CF, 820 ohm
R829	24322228	MF, 0.22 ohm, 1W
R830	24366471	CF, 470 ohm
R841	24531120	FR, 12 ohm, 1/2W
R842	24552392	OMF, 3900 ohm, 1/2W
R846	24366561	CF, 560 ohm
R847	24366472	CF, 4700 ohm
R871	24366101	CF, 100 ohm
R890	24553333	OMF, 33k ohm, 1W
⚠R899	24005007	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376561	CF, 560 ohm, 1/2W
R902	24376561	CF, 560 ohm, 1/2W
R903	24376561	CF, 560 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R909	24366222	CF, 2200 ohm
R912	24366102	CF, 1k ohm
R914	24366561	CF, 560 ohm
R915	24366101	CF, 100 ohm
R916	24366510	CF, 51 ohm
R917	24366471	CF, 470 ohm
R918	24366820	CF, 82 ohm
R919	24366102	CF, 1k ohm
⚠R920	24000907	FR, 3.9 ohm, 1W
R921	24366561	CF, 560 ohm
R922	24366101	CF, 100 ohm
R924	24366820	CF, 82 ohm
R925	24366471	CF, 470 ohm
R926	24366102	CF, 1k ohm
R928	24366561	CF, 560 ohm
R929	24366101	CF, 100 ohm
R930	24366820	CF, 82 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366391	CF, 390 ohm
R935	24366821	CF, 820 ohm
R936	24366750	CF, 75 ohm
R937	24366471	CF, 470 ohm
R939	24366101	CF, 100 ohm
R942	24366392	CF, 3900 ohm
R943	24366392	CF, 3900 ohm
R944	24366392	CF, 3900 ohm
R945	24366510	CF, 51 ohm
R946	24366510	CF, 51 ohm
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R962	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R965	24383153	OMF, 15k ohm, 2W
R977	24366122	CF, 1200 ohm
R980	24366471	CF, 470 ohm
R981	24366821	CF, 820 ohm
R982	24366103	CF, 10k ohm
R983	24366222	CF, 2200 ohm
R984	24367152	CF, 1500 ohm, ±2%

Location No.	Part No.	Description
R985	24367471	CF, 470 ohm, ±2%
R986	24367681	CF, 680 ohm, ±2%
R987	24367681	CF, 680 ohm, ±2%
R988	24367472	CF, 4700 ohm, ±2%
R989	24367332	CF, 3300 ohm, ±2%
R990	24366242	CF, 2400 ohm
R991	24367681	CF, 680 ohm, ±2%
R992	24366150	CF, 15 ohm
RA03	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA13	24366153	CF, 15k ohm
RA16	24366102	CF, 1k ohm
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA22	24366472	CF, 4700 ohm
RA23	24366472	CF, 4700 ohm
RA24	24366472	CF, 4700 ohm
RA25	24366332	CF, 3300 ohm
RA26	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA33	24366103	CF, 10k ohm
RA35	24366102	CF, 1k ohm
RA36	24366472	CF, 4700 ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA61	24366103	CF, 10k ohm
RA62	24366103	CF, 10k ohm
RA67	24366272	CF, 2700 ohm
RA68	24366272	CF, 2700 ohm
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RB01	24366271	CF, 270 ohm
RB02	24366271	CF, 270 ohm
RB03	24366101	CF, 100 ohm
RB09	24366470	CF, 47 ohm
RB10	24366101	CF, 100 ohm
RB11	24366103	CF, 10k ohm
RB30	24366103	CF, 10k ohm
RB40	24366103	CF, 10k ohm
RB41	24366182	CF, 1800 ohm
RB42	24366102	CF, 1k ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RD01	24872101	Chip, 100 ohm, 1/16W
RD02	24872101	Chip, 100 ohm, 1/16W
RD03	24872101	Chip, 100 ohm, 1/16W
RD04	24872101	Chip, 100 ohm, 1/16W
RD05	24872104	Chip, 100k ohm, 1/16W
RD06	24872272	Chip, 2700 ohm, 1/16W
RD07	24872104	Chip, 100k ohm, 1/16W
RD08	24872272	Chip, 2700 ohm, 1/16W
RD09	24872104	Chip, 100k ohm, 1/16W
RD10	24872104	Chip, 100k ohm, 1/16W
RD11	24872272	Chip, 2700 ohm, 1/16W
RD12	24872562	Chip, 5600 ohm, 1/16W
RD13	24872103	Chip, 10k ohm, 1/16W

Location No.	Part No.	Description
RD14	24872104	Chip, 100k ohm, 1/16W
RD15	24872222	Chip, 2200 ohm, 1/16W
RD16	24872103	Chip, 10k ohm, 1/16W
RD17	24872222	Chip, 2200 ohm, 1/16W
RD18	24872123	Chip, 12k ohm, 1/16W
RD19	24872822	Chip, 8200 ohm, 1/16W
RD20	24872105	Chip, 1M ohm, 1/16W
RD21	24872822	Chip, 8200 ohm, 1/16W
RD22	24872822	Chip, 8200 ohm, 1/16W
RD23	24872101	Chip, 100 ohm, 1/16W
RD24	24872562	Chip, 5600 ohm, 1/16W
RD25	24872272	Chip, 2700 ohm, 1/16W
RD26	24872822	Chip, 8200 ohm, 1/16W
RD27	24872822	Chip, 8200 ohm, 1/16W
RD28	24872103	Chip, 10k ohm, 1/16W
RD29	24872103	Chip, 10k ohm, 1/16W
RD30	24872822	Chip, 8200 ohm, 1/16W
RD31	24872101	Chip, 100 ohm, 1/16W
RD32	24872473	Chip, 47k ohm, 1/16W
RD33	24872205	Chip, 2M ohm, 1/16W
RD34	24872822	Chip, 8200 ohm, 1/16W
RD35	24872822	Chip, 8200 ohm, 1/16W
RD36	24872822	Chip, 8200 ohm, 1/16W
RD37	24000593	Chip, 10k ohm, ±1%, 1/16W
RD38	24872912	Chip, 9100 ohm, 1/16W
RD39	24872562	Chip, 5600 ohm, 1/16W
RD40	24872104	Chip, 100k ohm, 1/16W
RD41	24872104	Chip, 100k ohm, 1/16W
RD42	24000593	Chip, 10k ohm, ±1%, 1/16W
RD43	24000593	Chip, 10k ohm, ±1%, 1/16W
RD44	24000593	Chip, 10k ohm, ±1%, 1/16W
RD45	24872103	Chip, 10k ohm, 1/16W
RD46	24872183	Chip, 18k ohm, 1/16W
RD47	24872912	Chip, 9100 ohm, 1/16W
RD48	24872362	Chip, 3600 ohm, 1/16W
RD49	24872103	Chip, 10k ohm, 1/16W
RD50	24872203	Chip, 20k ohm, 1/16W
RD51	24872472	Chip, 4700 ohm, 1/16W
RD52	24872104	Chip, 100k ohm, 1/16W
RD53	24872123	Chip, 12k ohm, 1/16W
RD54	24872103	Chip, 10k ohm, 1/16W
RD55	24872153	Chip, 15k ohm, 1/16W
RD56	24872392	Chip, 3900 ohm, 1/16W
RD57	24872153	Chip, 15k ohm, 1/16W
RD58	24872562	Chip, 5600 ohm, 1/16W
RD59	24872123	Chip, 12k ohm, 1/16W
RD60	24872103	Chip, 10k ohm, 1/16W
RD61	24872105	Chip, 1M ohm, 1/16W
RD64	24872103	Chip, 10k ohm, 1/16W
RD65	24872101	Chip, 100 ohm, 1/16W
RD66	24871222	Chip, 2200 ohm, 1/8W
RD67	24871182	Chip, 1800 ohm, 1/8W
RD68	24872101	Chip, 100 ohm, 1/16W
RD69	24871105	Chip, 1M ohm, 1/8W
RD70	24872103	Chip, 10k ohm, 1/16W
RD71	24872102	Chip, 1k ohm, 1/16W
RD73	24872102	Chip, 1k ohm, 1/16W
RD74	24872102	Chip, 1k ohm, 1/16W
RD77	24872153	Chip, 15k ohm, 1/16W
RD78	24872103	Chip, 10k ohm, 1/16W
RD79	24872101	Chip, 100 ohm, 1/16W
RD80	24872101	Chip, 100 ohm, 1/16W
RD81	24872101	Chip, 100 ohm, 1/16W
RD82	24872101	Chip, 100 ohm, 1/16W

Location No.	Part No.	Description
RG01	24366223	CF, 22k ohm
RG02	24366223	CF, 22k ohm
RG03	24366101	CF, 100 ohm
RG04	24366101	CF, 100 ohm
RG05	24366101	CF, 100 ohm
RG06	24366101	CF, 100 ohm
RG07	24366101	CF, 100 ohm
RG08	24366101	CF, 100 ohm
RG09	24366123	CF, 12k ohm
RG10	24366303	CF, 30k ohm
RG11	24366123	CF, 12k ohm
RG12	24366303	CF, 30k ohm
RQ07	24366103	CF, 10k ohm
RQ08	24366102	CF, 1k ohm
RQ09	24366102	CF, 1k ohm
RQ10	24366102	CF, 1k ohm
RQ11	24366561	CF, 560 ohm
RQ12	24366561	CF, 560 ohm
RR01	24366472	CF, 4700 ohm
RR02	24366472	CF, 4700 ohm
RR03	24366472	CF, 4700 ohm
RR10	24366103	CF, 10k ohm
RR11	24366223	CF, 22k ohm
RR12	24366223	CF, 22k ohm
RR17	24366102	CF, 1k ohm
RR18	24366102	CF, 1k ohm
RR20	24366472	CF, 4700 ohm
RR21	24366103	CF, 10k ohm
RR22	24366473	CF, 47k ohm
RR23	24366101	CF, 100 ohm
RR24	24366101	CF, 100 ohm
RR25	24366101	CF, 100 ohm
RR26	24366101	CF, 100 ohm
RR27	24366473	CF, 47k ohm
RR28	24366473	CF, 47k ohm
RR29	24366473	CF, 47k ohm
RR30	24366472	CF, 4700 ohm
RR31	24366471	CF, 470 ohm
RR33	24366102	CF, 1k ohm
RR34	24366102	CF, 1k ohm
RR35	24366102	CF, 1k ohm
RR36	24366682	CF, 6800 ohm
RR37	24366682	CF, 6800 ohm
RR38	24366682	CF, 6800 ohm
RR93	24366472	CF, 4700 ohm
RS01	24366681	CF, 680 ohm
RS02	24366681	CF, 680 ohm
RS03	24366101	CF, 100 ohm
RS04	24366101	CF, 100 ohm
RS05	24366472	CF, 4700 ohm
RS06	24366472	CF, 4700 ohm
RS07	24366472	CF, 4700 ohm
RS08	24366472	CF, 4700 ohm
RS09	24366472	CF, 4700 ohm
RS10	24366472	CF, 4700 ohm
RS11	24366101	CF, 100 ohm
RS13	24366101	CF, 100 ohm
RS14	24366101	CF, 100 ohm
RS15	24366104	CF, 100k ohm
RS16	24366104	CF, 100k ohm
RS17	24366223	CF, 22k ohm
RS18	24366223	CF, 22k ohm
RS19	24366102	CF, 1k ohm
RS20	24366102	CF, 1k ohm

Location No.	Part No.	Description
RS21	24366222	CF, 2200 ohm
RS22	24366222	CF, 2200 ohm
RS23	24366101	CF, 100 ohm
RS24	24366101	CF, 100 ohm
RS27	24366104	CF, 100k ohm
RS28	24366104	CF, 100k ohm
RS29	24366223	CF, 22k ohm
RS30	24366223	CF, 22k ohm
RS31	24366103	CF, 10k ohm
RS32	24366104	CF, 100k ohm
RS35	24366223	CF, 22k ohm
RS36	24366223	CF, 22k ohm
RS37	24366104	CF, 100k ohm
RS38	24366104	CF, 100k ohm
RS43	24366681	CF, 680 ohm
RS44	24366681	CF, 680 ohm
RS45	24366681	CF, 680 ohm
RS46	24366681	CF, 680 ohm
RT01	24366332	CF, 3300 ohm
RT02	24366102	CF, 1k ohm
RT03	24366101	CF, 100 ohm
RT04	24366273	CF, 27k ohm
RT05	24366103	CF, 10k ohm
RT06	24366103	CF, 10k ohm
RT07	24366102	CF, 1k ohm
RT08	24366103	CF, 10k ohm
RT09	24366101	CF, 100 ohm
RT10	24366472	CF, 4700 ohm
RT11	24366392	CF, 3900 ohm
RT12	24366682	CF, 6800 ohm
RT13	24366103	CF, 10k ohm
RT14	24366222	CF, 2200 ohm
RT15	24366101	CF, 100 ohm
RT16	24366101	CF, 100 ohm
RT17	24366102	CF, 1k ohm
RT18	24366152	CF, 1500 ohm
RT19	24366122	CF, 1200 ohm
RT20	24366471	CF, 470 ohm
RT22	24366271	CF, 270 ohm
RT23	24366821	CF, 820 ohm
RV01	24366101	CF, 100 ohm
RV02	24366101	CF, 100 ohm
RV03	24366101	CF, 100 ohm
RV04	24366101	CF, 100 ohm
RV05	24366101	CF, 100 ohm
RV06	24366101	CF, 100 ohm
RV07	24366162	CF, 1600 ohm
RV08	24366162	CF, 1600 ohm
RV09	24366101	CF, 100 ohm
RV10	24366101	CF, 100 ohm
RV11	24366101	CF, 100 ohm
RV18	24366123	CF, 12k ohm
RV19	24366101	CF, 100 ohm
RV20	24366101	CF, 100 ohm
RV21	24366221	CF, 220 ohm
RV22	24366680	CF, 68 ohm
RV23	24552101	OMF, 100 ohm, 1/2W
RV25	24366101	CF, 100 ohm
RV26	24366181	CF, 180 ohm
RV27	24366750	CF, 75 ohm
RV30	24366750	CF, 75 ohm
RV31	24366103	CF, 10k ohm
RV32	24366750	CF, 75 ohm
RV33	24366123	CF, 12k ohm

Location No.	Part No.	Description
RV34	24366123	CF, 12k ohm
RV35	24366103	CF, 10k ohm
RV41	24366104	CF, 100k ohm
RV42	24366471	CF, 470 ohm
RV43	24366471	CF, 470 ohm
RV44	24366471	CF, 470 ohm
RV45	24366100	CF, 10 ohm
RV46	24366112	CF, 1100 ohm
RV47	24366102	CF, 1k ohm
RV48	24366102	CF, 1k ohm
RV49	24366102	CF, 1k ohm
RV52	24552101	OMF, 100 ohm, 1/2W
RV60	24366102	CF, 1k ohm
RV61	24366471	CF, 470 ohm
RV62	24366471	CF, 470 ohm
RV65	24552101	OMF, 100 ohm, 1/2W
RV66	24366101	CF, 100 ohm
RV67	24552820	OMF, 82 ohm, 1/2W
RV68	24366750	CF, 75 ohm
RV71	24366750	CF, 75 ohm
RV73	24366181	CF, 180 ohm
RV74	24366101	CF, 100 ohm
RV75	24366332	CF, 3300 ohm
RV76	24366220	CF, 22 ohm
RV77	24366182	CF, 1800 ohm
RV80	24366681	CF, 680 ohm
RV81(U904)	24366750	CF, 75 ohm
RV81(U902A)	24366681	CF, 680 ohm
RV82	24366220	CF, 22 ohm
RV83	24366220	CF, 22 ohm
RV84	24366220	CF, 22 ohm
RV85(U902A)	24366750	CF, 75 ohm
RV85(U904)	24366510	CF, 51 ohm
RV86	24366510	CF, 51 ohm
RV87(U904)	24366510	CF, 51 ohm
RV87(U902A)	24366750	CF, 75 ohm
RV89	24366750	CF, 75 ohm
RV90	24366681	CF, 680 ohm
RV91	24366681	CF, 680 ohm
RV92	24366271	CF, 270 ohm
RV93	24366471	CF, 470 ohm
RV94	24366101	CF, 100 ohm
RV95	24366102	CF, 1k ohm
RV96	24552101	OMF, 100 ohm, 1/2W
RZ31	24366102	CF, 1k ohm

COILS & TRANSFORMERS

L201	23289150	Coil, Peaking, TRF4150AF
L202	23289220	Coil, Peaking, TRF4220AF
L301	23103859	Coil (Ferrite Bead), TEM2011
L302	23237975	Coil, Peaking, TRF4101AC
L400	23289100	Coil, Peaking, TRF4100AF
L441	23233947	Coil, Linearity, TLN2144G
L442	23248117	Coil, Choke, TLN3382D
L443	23221684	Coil, Choke, TLN3191D
L461	23221896	Coil, Choke, TLN3061
⚠L462	----------	DY, Supplied with V901
L463	23103859	Coil (Ferrite Bead), TEM2011
L491	23248116	Coil, Choke, TLN3368D
L501	23289479	Coil, Peaking, TRF44R7AF
L503	23289470	Coil, Peaking, TRF4470AF
L601	23103859	Coil (Ferrite Bead), TEM2011
L602	23103859	Coil (Ferrite Bead), TEM2011
L676	23289109	Coil, Peaking, TRF41R0AF

Location No.	Part No.	Description
L677	23289109	Coil, Peaking, TRF41R0AF
L682	23238562	Coil, Peaking, TRF4109AJ
L683	23238562	Coil, Peaking, TRF4109AJ
L810	23103941	Coil (Ferrite Bead), TEM2000
L811	23103859	Coil (Ferrite Bead), TEM2011
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011
L893	23222694	Coil, Width, TLN2026
L896	23103859	Coil (Ferrite Bead), TEM2011
⚠L901	23200275	Coil, Degaussing, TSB-2329BR
L902	23289101	Coil, Peaking, TRF4101AF
L903	23289101	Coil, Peaking, TRF4101AF
L904	23289101	Coil, Peaking, TRF4101AF
L905	23289390	Coil, Peaking, TRF4390AF
L906	23289390	Coil, Peaking, TRF4390AF
L907	23289390	Coil, Peaking, TRF4390AF
L908	23289100	Coil, Peaking, TRF4100AF
L910	23289479	Coil, Peaking, TRF44R7AF
LA01	23289100	Coil, Peaking, TRF4100AF
LB01	23262996	Coil, IF, TRF1169D
LD01	23103859	Coil (Ferrite Bead), TEM2011
LD02	23238714	Coil, Peaking, TRF4100AJ
LG41	23237999	Coil, Peaking, TRF4109AC
LQ03	23238718	Coil, Peaking, TRF4479AJ
LQ04	23238718	Coil, Peaking, TRF4479AJ
LT01	23289339	Coil, Peaking, TRF43R3AF
LT02	23238562	Coil, Peaking, TRF4109AJ
LT03	23289150	Coil, Peaking, TRF4150AF
LT04	23238714	Coil, Peaking, TRF4100AJ
LT05	23238714	Coil, Peaking, TRF4100AJ
LT06	23238714	Coil, Peaking, TRF4100AJ
LT07	23238714	Coil, Peaking, TRF4100AJ
LT08	23103859	Coil (Ferrite Bead), TEM2011
LT09	23238714	Coil, Peaking, TRF4100AJ
LT10	23238506	Coil, Peaking, TRF4229AJ
LT11	23238714	Coil, Peaking, TRF4100AJ
LT12	23238506	Coil, Peaking, TRF4229AJ
LT13	23238506	Coil, Peaking, TRF4229AJ
LV01	23103824	Coil, TEM2028K
LV02	23289220	Coil, Peaking, TRF4220AF
LV37	23289150	Coil, Peaking, TRF4150AF
LV42	23289100	Coil, Peaking, TRF4100AF
LV43	23289100	Coil, Peaking, TRF4100AF
LV48	23238705	Coil, Peaking, TRF4560AJ
⚠T401	23224336	Transformer, Horiz. Drive, TLN1083
⚠T461	23236447	Transformer, Flyback, TFB4115AR
⚠T801	23211670	Line, Filter, TRF3164G
⚠T803	23217301	Transformer, Converter, TPW3336AR

SEMICONDUCTORS

Q200	A6330059	Transistor, 2SC2482(C)
Q202	A6342206	Transistor, 2SC2878-A(TE
Q203	A6734590	Transistor, 2SC752(G)TM-Y
Q204	23314794	Transistor, 2PC1815Y
Q205	23314794	Transistor, 2PC1815Y
Q301	B0378560	IC, TA8427K
Q302	B0384625	IC, TA8859CP

Location No.	Part No.	Description
Q370	23314791	Transistor, 2PA1015Y
Q402	A678971D	Transistor, 2SC1569 FA-5
⚠Q404	A6872801	Transistor, 2SD2253(FA)
Q420	23314141	Transistor, 2SC3852
Q421	23314794	Transistor, 2PC1815Y
Q430	A6333346	Transistor, 2SC2655-Y(C)
Q460	23314850	Transistor, 2SA1788-E
Q461	23314794	Transistor, 2PC1815Y
Q462	23314794	Transistor, 2PC1815Y
Q470	23314794	Transistor, 2PC1815Y
Q501	B0385673	IC, TA1222AN
Q502	23314794	Transistor, 2PC1815Y
Q503	23314794	Transistor, 2PC1815Y
Q611	23314791	Transistor, 2PA1015Y
Q612	23314791	Transistor, 2PA1015Y
Q640	B0376856	IC, TA8211AH
Q641	A6342206	Transistor, 2SC2878-A(TE
Q642	A6342206	Transistor, 2SC2878-A(TE
Q670	B0377307	IC, TA8256H
Q671	A6342206	Transistor, 2SC2878-A(TE
Q672	A6342206	Transistor, 2SC2878-A(TE
Q673	A6342206	Transistor, 2SC2878-A(TE
Q688	A6002040	Transistor, RN1204
⚠Q801	23905084	IC, STR-S6709
Q802	23314141	Transistor, 2SC3852
⚠Q826	A8643106	Photo Coupler, TLP621(GR)
Q830	23314141	Transistor, 2SC3852
Q840	23318299	IC, L78MR05
Q901	23314811	Transistor, 2SC5147
Q902	23314794	Transistor, 2PC1815Y
Q903	23314811	Transistor, 2SC5147
Q904	23314794	Transistor, 2PC1815Y
Q905	23314811	Transistor, 2SC5147
Q906	23314794	Transistor, 2PC1815Y
Q907	A6509154	Transistor, 2SA562TM-Y(T)
Q908	A6321265	Transistor, 2SC2120-Y(TE)
Q910	23314794	Transistor, 2PC1815Y
Q911	23314794	Transistor, 2PC1815Y
Q912	23314791	Transistor, 2PA1015Y
Q913	23314791	Transistor, 2PA1015Y
Q914	23314794	Transistor, 2PC1815Y
QA01	23905593	IC, TMP87PS38N
QA02	23904666	IC, NM24C08EN
QB01	23314794	Transistor, 2PC1815Y
QB03	A6002050	Transistor, RN1205
QB30	23314794	Transistor, 2PC1815Y
QD01	23905042	IC, YSS215-F
QD02	B0478127	IC, TC51832AFL-8
QD03	23905041	IC, YSS238-D
QD04	B0470534	IC, TC4053BF
QD05	B0345640	IC, TA7508F
QD06	B0345640	IC, TA7508F
QD07	B0345640	IC, TA7508F
QD08	B0470534	IC, TC4053BF
QD10	B0345640	IC, TA7508F
QD11	B0350020	IC, TA75458F
QD12	B0385640	IC, TA1216N
QG01	B0385647	IC, TA1217AN
QQ02	B0383881	IC, TA8772AN
QQ03	23314794	Transistor, 2PC1815Y
QQ04	23314794	Transistor, 2PC1815Y
QR01	B0487584	IC, TC74HC4053AP
QR04	23314791	Transistor, 2PA1015Y
QR05	23314791	Transistor, 2PA1015Y

Location No.	Part No.	Description
QR06	23314791	Transistor, 2PA1015Y
QR17	23314794	Transistor, 2PC1815Y
QR19	A6734590	Transistor, 2SC752(G)TM-Y
QR20	23314794	Transistor, 2PC1815Y
QR21	23314794	Transistor, 2PC1815Y
QR22	A6734590	Transistor, 2SC752(G)TM-Y
QS01	A6342206	Transistor, 2SC2878-A(TE
QS02	A6342206	Transistor, 2SC2878-A(TE
QS03	A6342206	Transistor, 2SC2878-A(TE
QS04	A6342206	Transistor, 2SC2878-A(TE
QS05	A6342206	Transistor, 2SC2878-A(TE
QS06	A6342206	Transistor, 2SC2878-A(TE
QS07	A6010040	Transistor, RN2004
QS08	A6342206	Transistor, 2SC2878-A(TE
QS09	A6342206	Transistor, 2SC2878-A(TE
QT01	23904899	IC, SAA5281ZP/E
QT02	23314794	Transistor, 2PC1815Y
QT03	23314794	Transistor, 2PC1815Y
QT04	23314791	Transistor, 2PA1015Y
QT05	23314794	Transistor, 2PC1815Y
QT06	23314791	Transistor, 2PA1015Y
QV01	B0385650	IC, TA1218N
QV02	23314794	Transistor, 2PC1815Y
QV03	23314794	Transistor, 2PC1815Y
QV04	23314794	Transistor, 2PC1815Y
QV05	23314791	Transistor, 2PA1015Y
QV06	23314791	Transistor, 2PA1015Y
QV09	23314794	Transistor, 2PC1815Y
QV11	A6002030	Transistor, RN1203
QV12	23314794	Transistor, 2PC1815Y
QV13	23314794	Transistor, 2PC1815Y
QV14	23314794	Transistor, 2PC1815Y
D101	23316411	Diode, 1SS184
D201	23115599	Diode, 1N4148
D208	23115599	Diode, 1N4148
D301	23118095	Diode, ERB44-06
D302	23118479	Diode, BYD33J
D303	23316794	Diode, SC570A
D306	23115599	Diode, 1N4148
D308	23118822	Diode, ERB12-02
D309	23118822	Diode, ERB12-02
D370	23316652	Diode, Zener, MTZJ2.7A
D406	23118479	Diode, BYD33J
D420	23316680	Diode, Zener, MTZJ7.5A
D430	23316670	Diode, Zener, MTZJ5.1C
D431	23115599	Diode, 1N4148
D432	23316670	Diode, Zener, MTZJ5.1C
D441	23316687	Diode, Zener, MTZJ9.1B
D460	23118479	Diode, BYD33J
D461	23316582	Diode, ERC20-06
D463	23115599	Diode, 1N4148
D464	23316718	Diode, Zener, MTZJ12A
D466	23316672	Diode, Zener, MTZJ5.6B
D467	23118479	Diode, BYD33J
D468	23316718	Diode, Zener, MTZJ12A
D474	23316719	Diode, Zener, MTZJ12B
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148
D615	23115599	Diode, 1N4148
D640	23115599	Diode, 1N4148
D641	23115599	Diode, 1N4148
D642	23115599	Diode, 1N4148

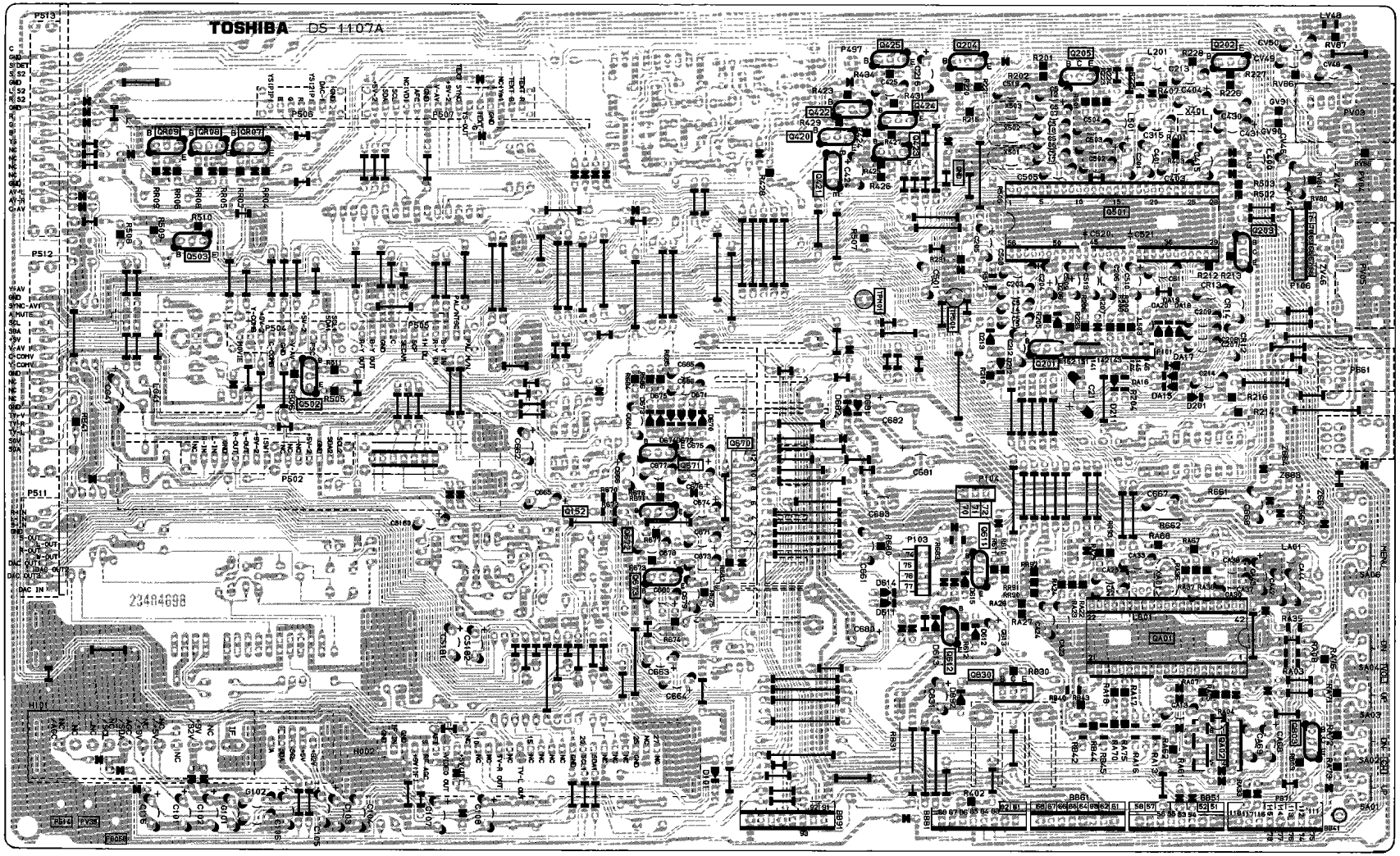
Location No.	Part No.	Description
D643	23115599	Diode, 1N4148
D644	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D801	23316795	Diode, D6SB60L, F05
D802	23118479	Diode, BYD33J
D803	23118479	Diode, BYD33J
D804	23316678	Diode, Zener, MTZJ6.8B
D805	23115599	Diode, 1N4148
D806	23118479	Diode, BYD33J
D808	23118479	Diode, BYD33J
D809	23316672	Diode, Zener, MTZJ5.6B
D810	23115599	Diode, 1N4148
D811	23115599	Diode, 1N4148
D815	23316725	Diode, Zener, MTZJ15B
D828	23115599	Diode, 1N4148
D871	23115599	Diode, 1N4148
D872	23115599	Diode, 1N4148
D883	23316406	Diode, FML-G16S
D885	23316184	Diode, FML-G12S
D891	23118052	Diode, RU4Z
D892(U902A)	23316673	Diode, Zener, MTZJ5.6C
D892(U903)	23118052	Diode, RU4Z
D896	23118479	Diode, BYD33J
D901	23115599	Diode, 1N4148
D903	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D910	23115599	Diode, 1N4148
D911	23118479	Diode, BYD33J
DB01	23358505	LED, SLR56VC196F
DB02	23358503	LED, SCL003MC3FX
DB03	23358522	LED, SIR-56SB3F
DB30	23115599	Diode, 1N4148
DD01	A7150650	Diode, 1SS184
DD02	A7150650	Diode, 1SS184
DD03	A7150650	Diode, 1SS184
DR01	23115599	Diode, 1N4148
DR02	23115599	Diode, 1N4148
DR03	23316666	Diode, Zener, MTZJ4.7B
DR04	23115599	Diode, 1N4148
DR05	23115599	Diode, 1N4148
DR06	23115599	Diode, 1N4148
DV01	23316687	Diode, Zener, MTZJ9.1B
DV02	23316687	Diode, Zener, MTZJ9.1B
DV03	23316687	Diode, Zener, MTZJ9.1B
DV04	23316687	Diode, Zener, MTZJ9.1B
DV05	23316687	Diode, Zener, MTZJ9.1B
DV06	23316687	Diode, Zener, MTZJ9.1B
DV07	23316687	Diode, Zener, MTZJ9.1B
DV08	23115599	Diode, 1N4148
DV09	23115599	Diode, 1N4148
DV10	23115599	Diode, 1N4148
DV11	23115599	Diode, 1N4148

Location No.	Part No.	Description
MISCELLANEOUS		
⚠F470	23144502	Fuse, 1.0A
F470A	23165433	Holder, Fuse
⚠F801	23144898	Fuse, 3.15A
F801A	23165433	Holder, Fuse
G101	23189100	Coil, Peaking, TRF4100AF
KB01	23904946	Remote Sensor, RPM-676CBR-S
P004	23161702	Terminal, 8P
P005	23161596	Terminal, 2P
P661	23363607	Headphone Jack, 3.5mm
⚠P801	23372012	Power Cord
PV01	23365843	Jack, 1S6P
PV03	23365546	Jack, 2C-2P
PV04	23363252	Pin Jack, Yellow
PV05	23365508	Jack, Phono
S601	23145355	Switch, Slide, 4C-2P
⚠S801	23344395	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
⚠V901A	23902891	Socket, CRT, 10P
W008	23351002	Speaker, SPK-1276, 80x80mm, 8 ohm
W661	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W662	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W665	23351080	Speaker, SPK-1352, 100x100mm, 6 ohm
X401	23153721	Ceramic Resonator, 503kHz, TCR1023
X501	23153961	Crystal, 3.58MHz
X503	23153979	Crystal, 4.43MHz
XA01	23153325	Ceramic Resonator, 8.00M, TCR1056
XD01	23153399	Filter, TCR1066, 11.5MHz
XT01	23153457	Crystal, 27MHz
Z101	23436555	Stand Assembly
Z201	23107519	Ceramic Video Trap, 4.43MHz, TCF1066
Z643	23107742	Filter, TEM1014
Z645	23107742	Filter, TEM1014
Z661	23107744	Filter, TEM1012
Z664	23107744	Filter, TEM1012
Z801	23904998	IC, HIC1016
Z889	23144543	Protector, PRF50005491, 125V, 5A
Z890	23144543	Protector, PRF50005491, 125V, 5A
Z891	23144543	Protector, PRF50005491, 125V, 5A
Z895	23144450	Protector, PRF2000, 125V, 2A
Z896	23144539	Protector, PRF20005491, 125V, 2A
ZD01	23303108	Filter, TLC1203T
ZD02	23303108	Filter, TLC1203T
ZV04	23107787	Ceramic Video Trap, 3.58MHz, TCF1044

Location No.	Part No.	Description
PC BOARD ASSEMBLIES		
✻U902A	23705215	Signal Board, PB5655M
✻U903	23705216	Power/DEF Board, PB5656W
✻U904	23705249	Back/AV Board, PB5657Y
✻U905	23705217	CRT Drive/DSM Board, PB5659W
✻U906	23705225	1H DL Board, PB5661G
✻U907	23704369	Text/RGB Board, PB5662X
✻Y991Z	23793227	P-Logic Board, PB5665
PICTURE TUBE		
⚠V901	23312682	Picture Tube, A59EAK252X11
TUNER		
H001	23321196	Tuner, UF812BLX1
ACCESSORIES		
K902	23306069	Remote Hand Unit, CT-9763
AT04	23305572	Battery Cover
Y101	23562708	Owner's Manual, English, 2557DB

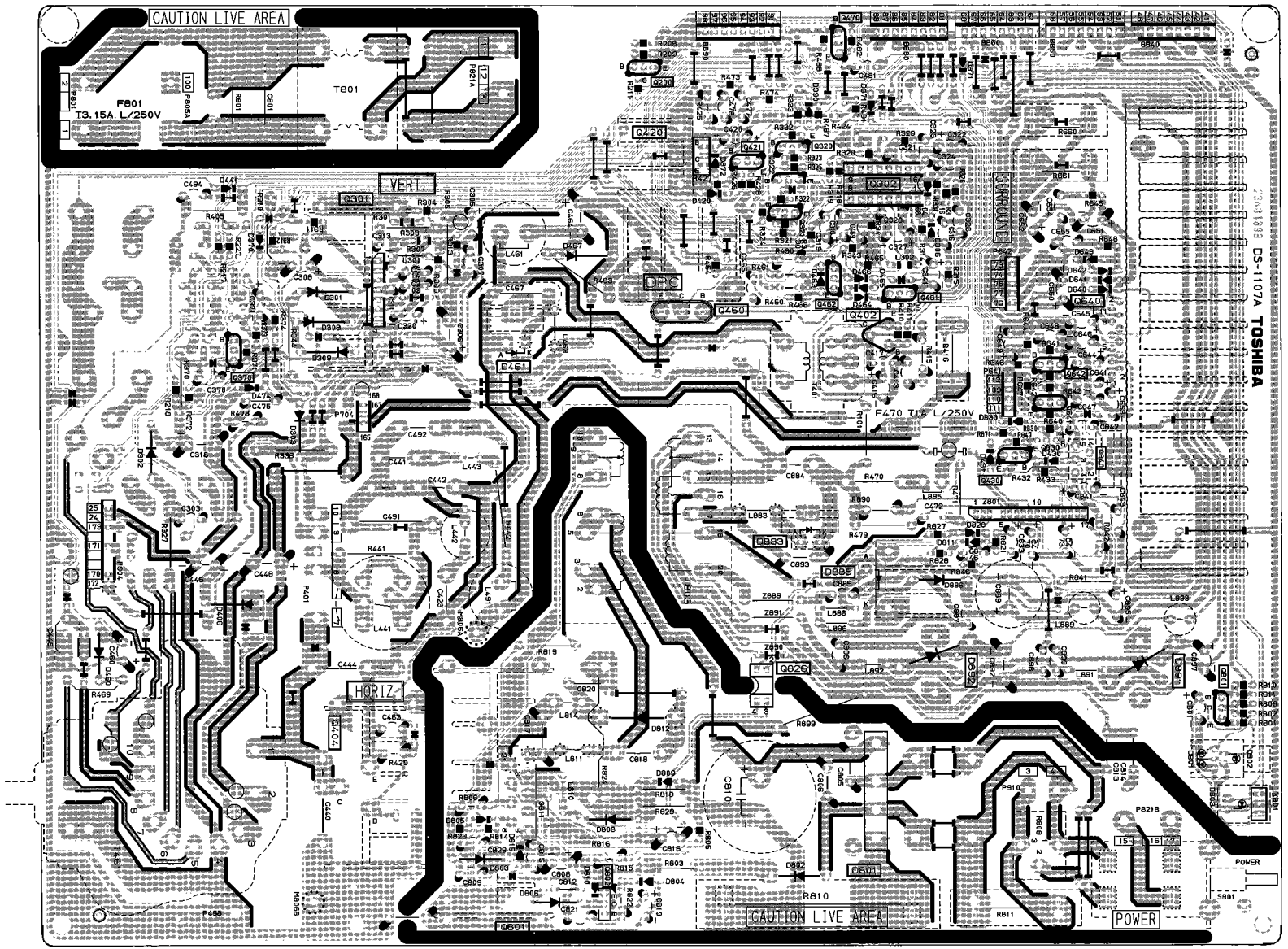
SIGNAL BOARD PB5655M

BOTTOM (FOIL) SIDE



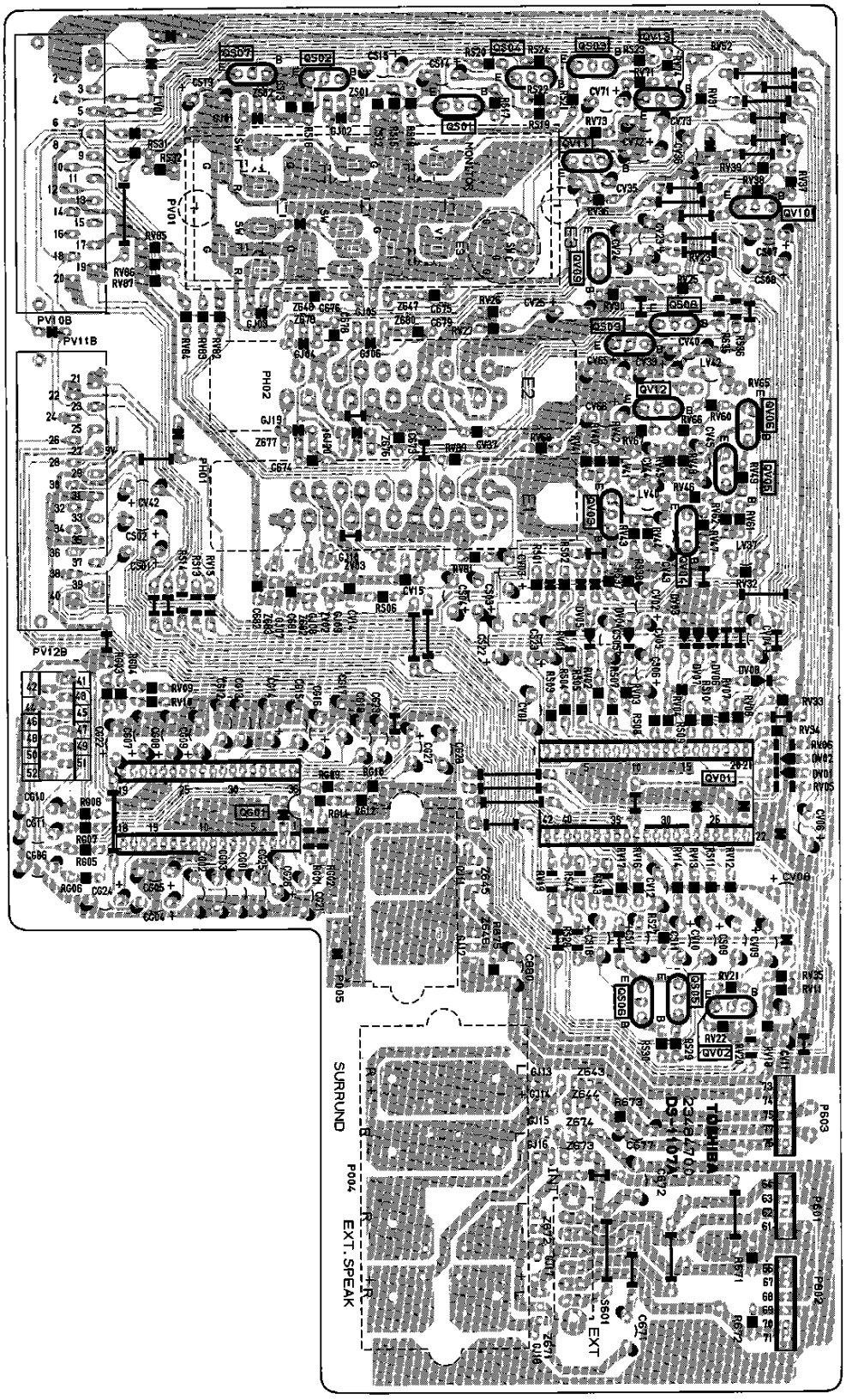
POWER/DEF BOARD PB5656W

BOTTOM (FOIL) SIDE



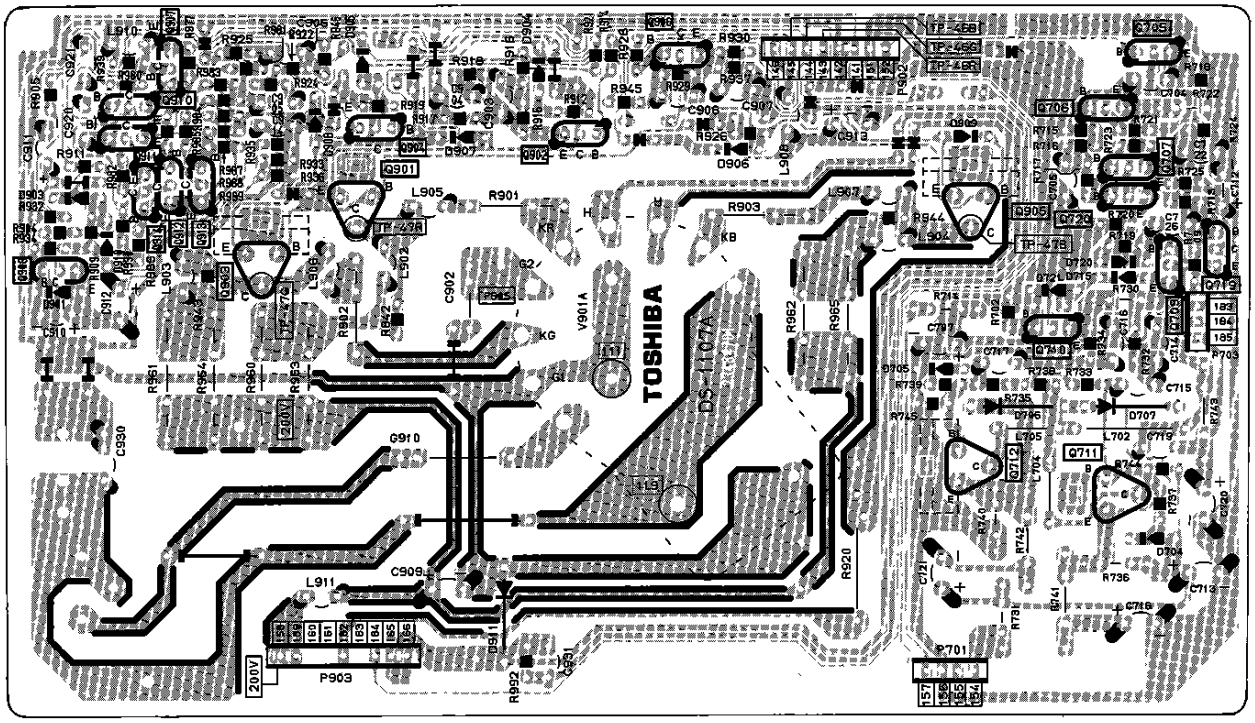
BACK TERMINAL/AV BOARD PB5657Y

BOTTOM (FOIL) SIDE



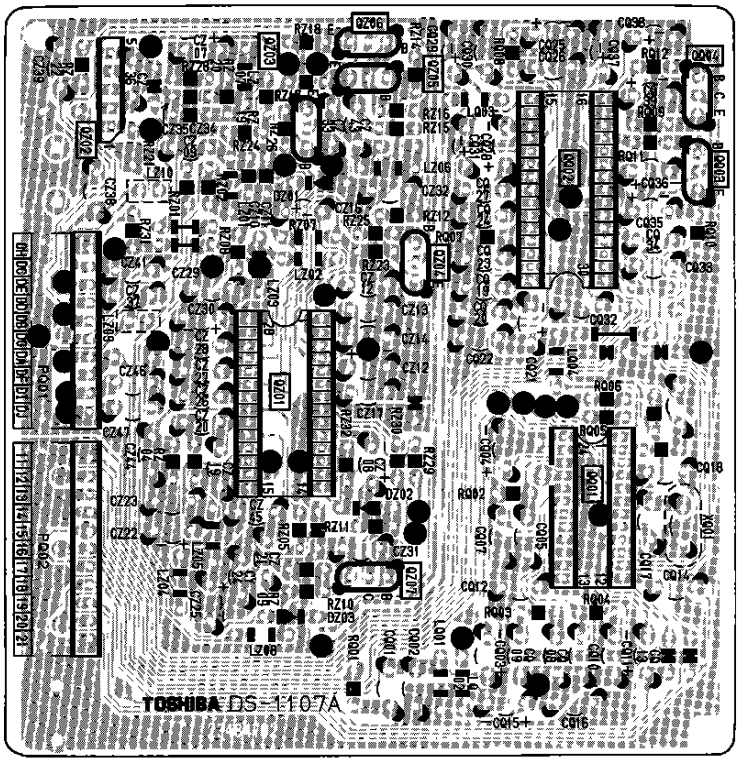
CRT. DRIVE/DSM BOARD PB5659W

BOTTOM (FOIL) SIDE



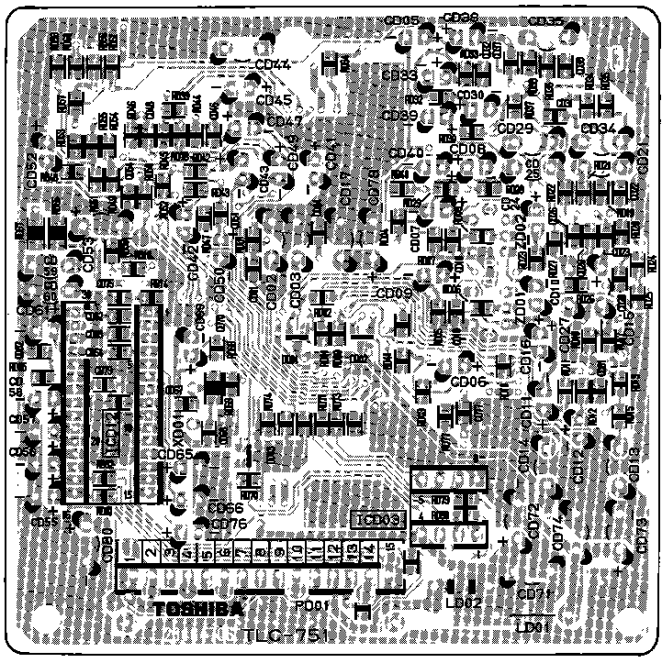
COMB/1H DL BOARD PB5661G

BOTTOM (FOIL) SIDE



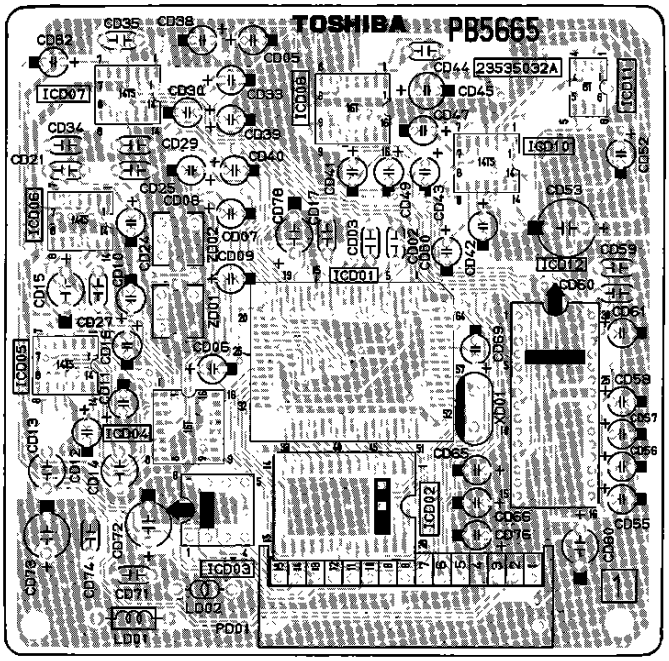
PRO-LOGIC BOARD PB5665

BOTTOM (FOIL) SIDE



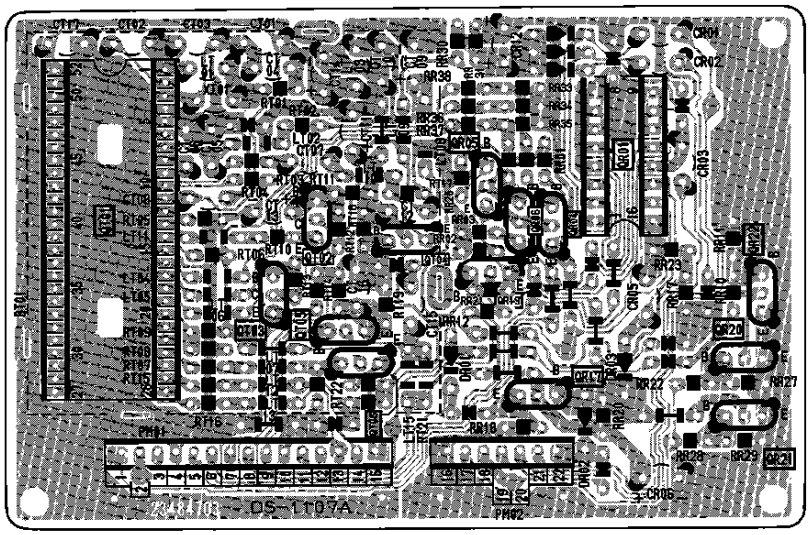
PRO-LOGIC BOARD PB5665

TOP (PARTS) SIDE



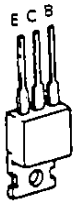
TEXT/RGB SW BOARD PB5662X

BOTTOM (FOIL) SIDE

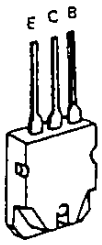


TERMINAL VIEW OF TRANSISTORS

① 2SC1569



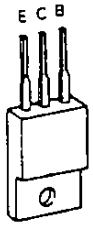
② 2SC3927(A)



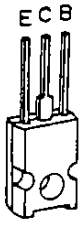
③ 2SC2580-C
2SC2655

④ 2SA933S
2SA1015-Y
2SA1320-Y
2SC752GTM
2SC1685-Q
2SC1740S
2SC1815-N
2SC1959-Y
2SC2120-Y
2SC2878-A

⑤ 2SB1186A
2SC3852
2SD2253

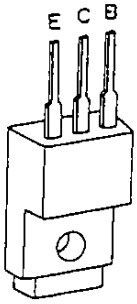


⑥ 2SC3619



⑦ RN1203
RN1204
RN1206
RN2004

⑧ 2SB1186A
2SD1763A



SPECIFICATIONS

Input Power Rating:	160 watts (Normal), 9 watts (Stand-by), AC 220 ~ 240 volts, 50 Hz
Mains Plug 'Fitted' Fuse:	5 ampere
Aerial Input Impedance:	75 ohm unbalanced type for UHF
Receiving Channels:	PAL I Standard: UHF ..... channels 21 to 68
Intermediate Frequencies:	Picture I-F carrier frequency ..... 38.9 MHz Sound I-F carrier frequency ..... 32.9 MHz Colour sub-carrier frequency ..... 34.47 MHz
Video Input:	PAL, PAL 60 Hz(Video disk playback) NTSC 3.58/4.43 MHz/50 Hz NTSC (VCR playback)
Picture Tube:	25 inches, A59EAK252X11, 590 mm (measured on diagonal of viewable picture area), 110° deflection
Sound Output:	10 w + 10 w (at 10% Distortion, Main) 13 w (at 10% Distortion, Woofer) 10 w (at 10% Distortion, Center) 5 w + 5 w (at 10% Distortion, Surround)
Speakers:	60 mm x 120 mm, oval, 2 pcs (Main) 100 mm, round, 1 pcs (Woofer)
Aux. Terminals:	21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm)
Cabinet:	Table type
Dimensions:	Height ..... 523.5 mm Width ..... 703 mm Depth ..... 460 mm
Mass:	29.5kg
Feature:	NICAM-I and Dolby Pro-logic surround sound

Specifications are subject to change without notice.

030 9611

SCHEMATIC DIAGRAM MODEL: 2557DB (1/4)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

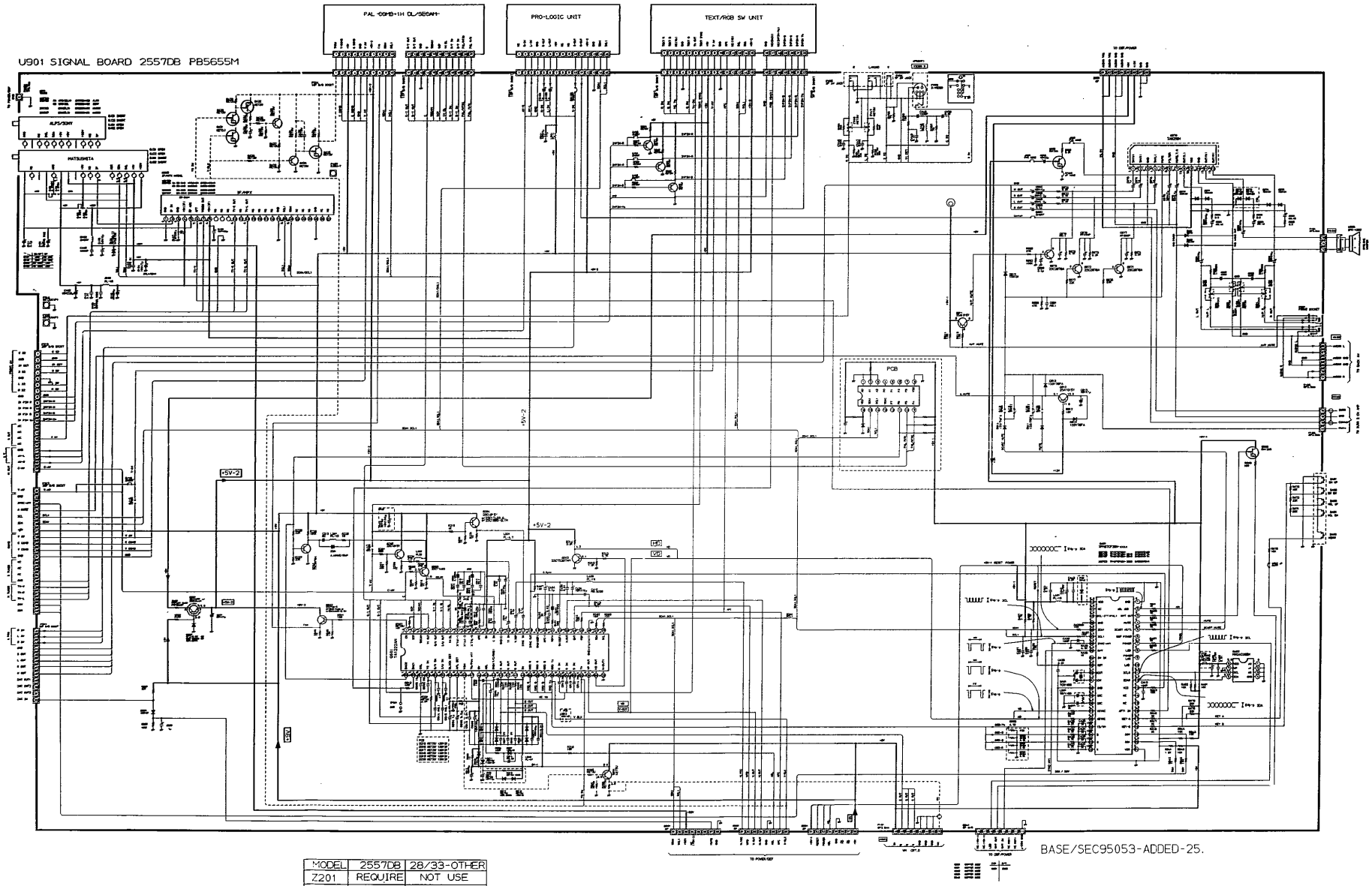
NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.



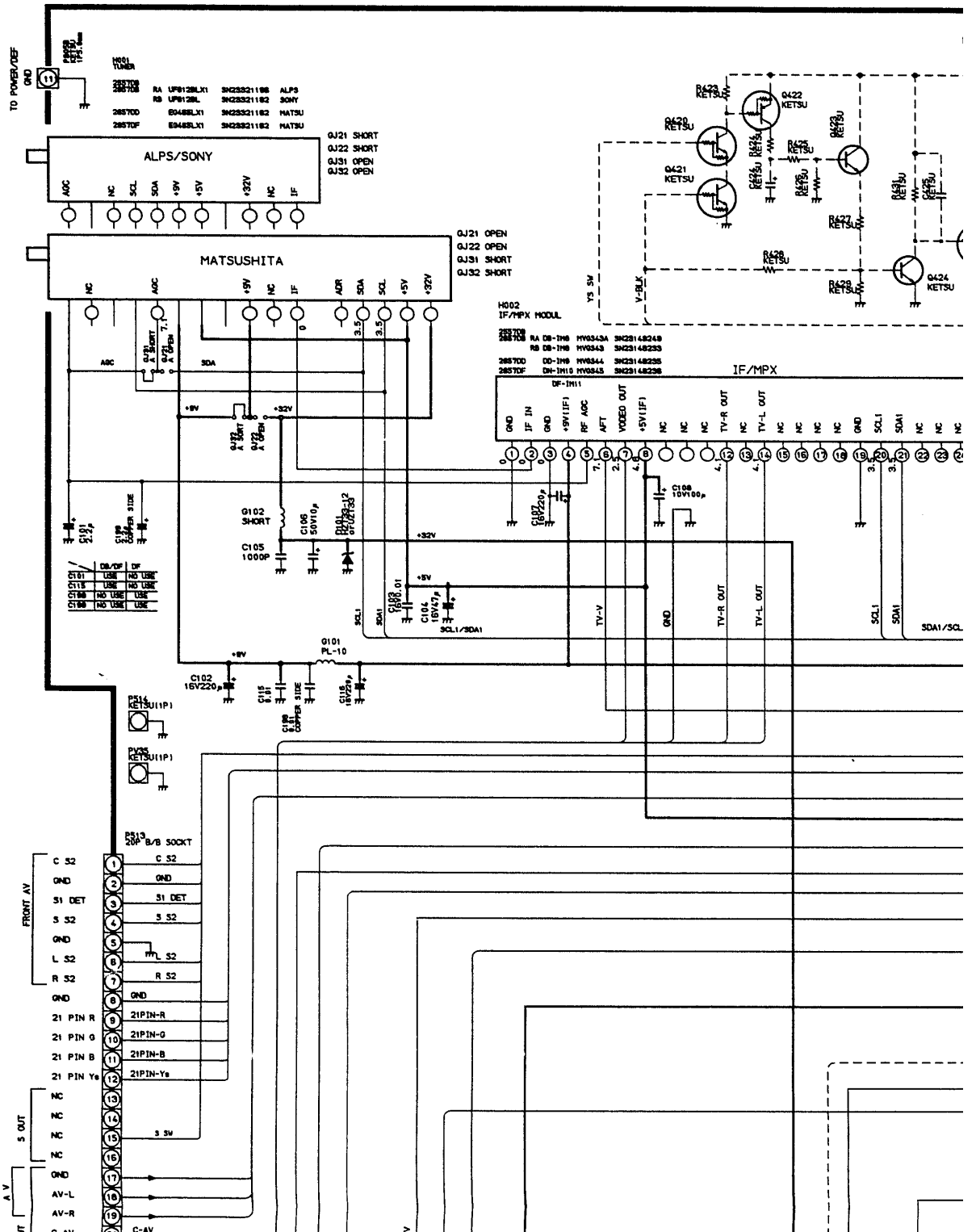
MODEL	2557DB	28/33-OTHER
Z201	REQUIRE	NOT USE
L202	REQUIRE	NOT USE
R203	REQUIRE	SHORT
DOT LINE	NOT USE	REQUIRE

030 9611

SCHEMATIC DIAGRAM MODEL: 2557DB (1/4)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

U901 SIGNAL BOARD 2557DB PB5655M



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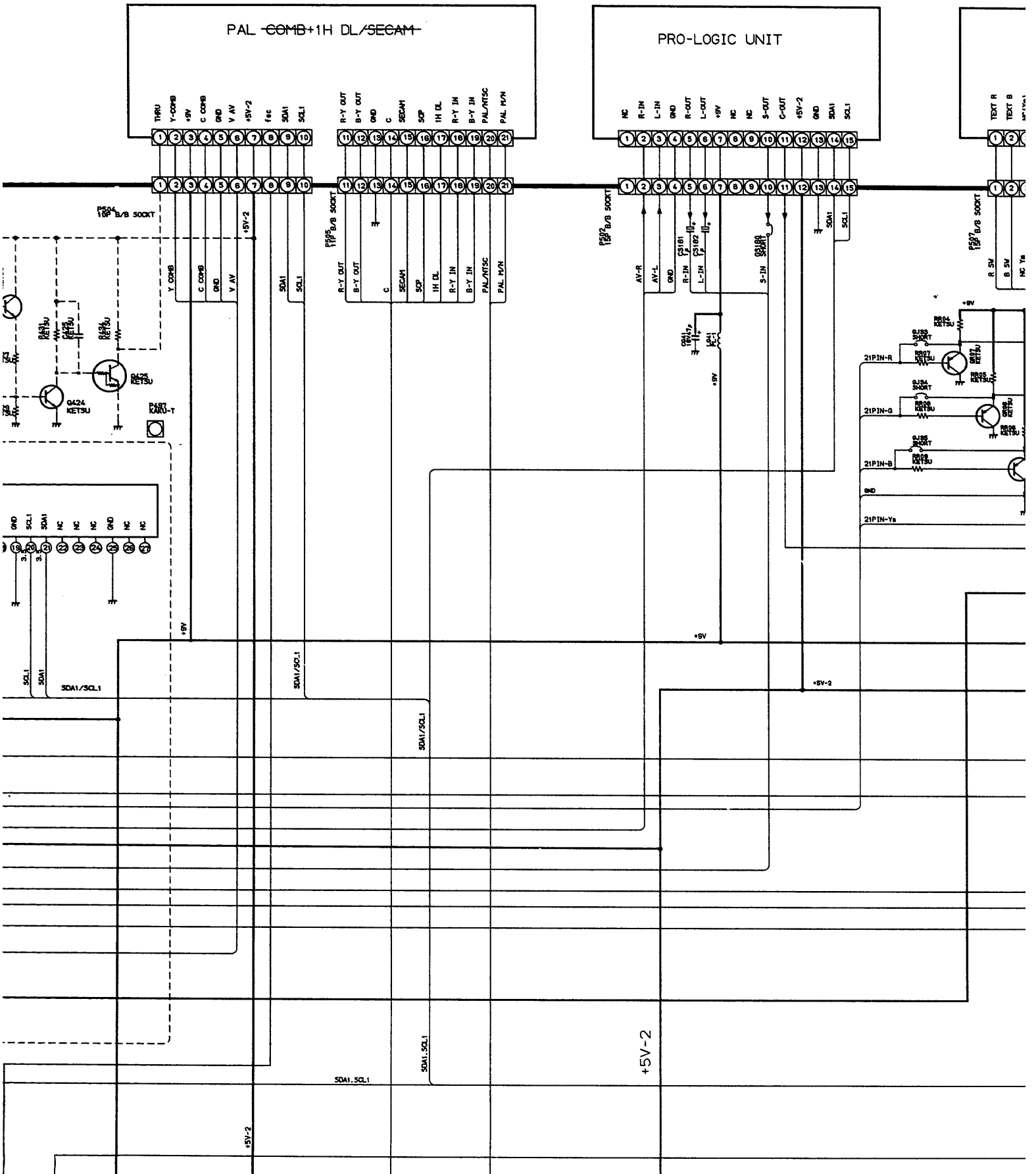
page 2. Do

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NO
1.
2.
3.



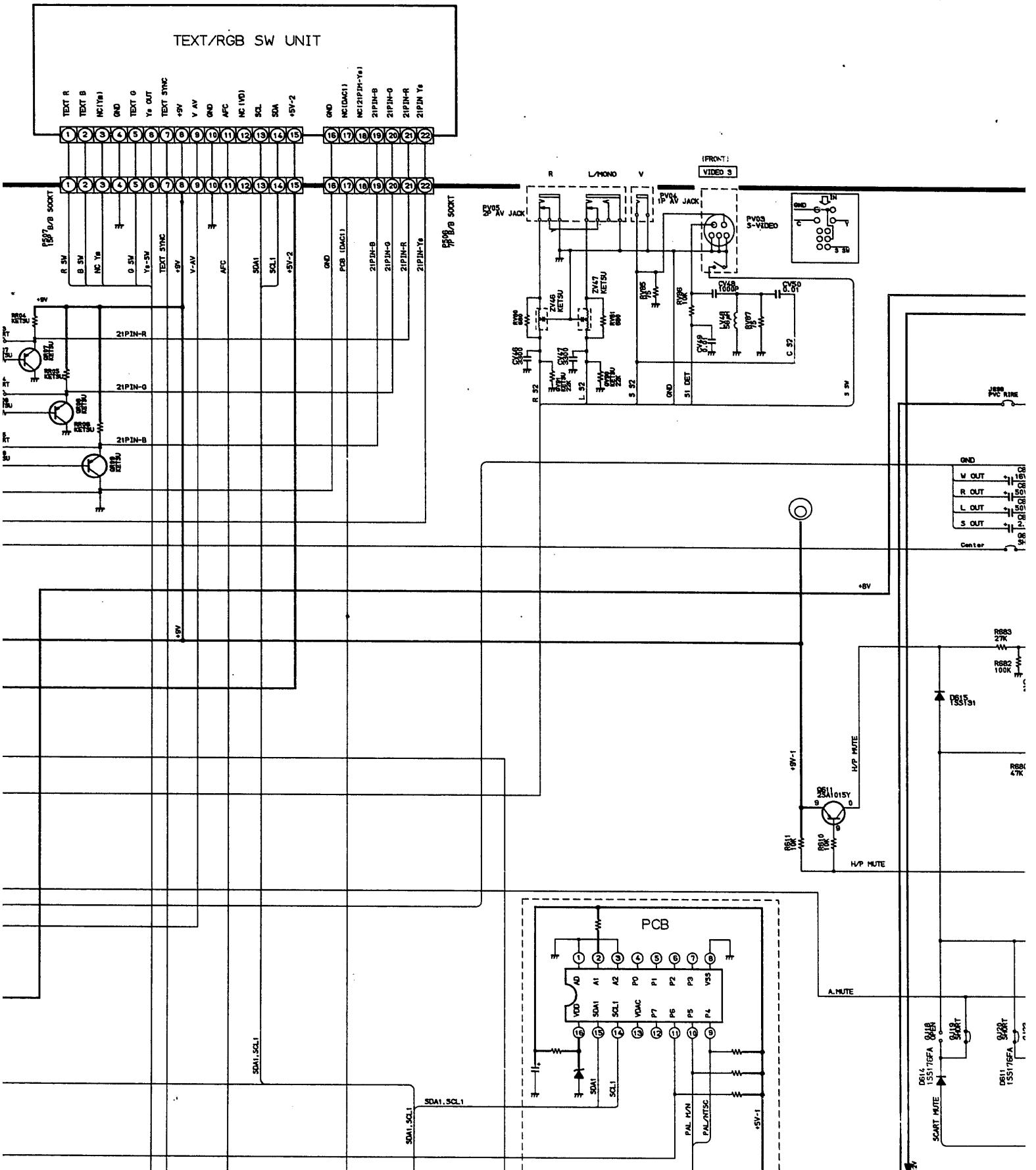
NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

EXPRESSIO

VALUE OF

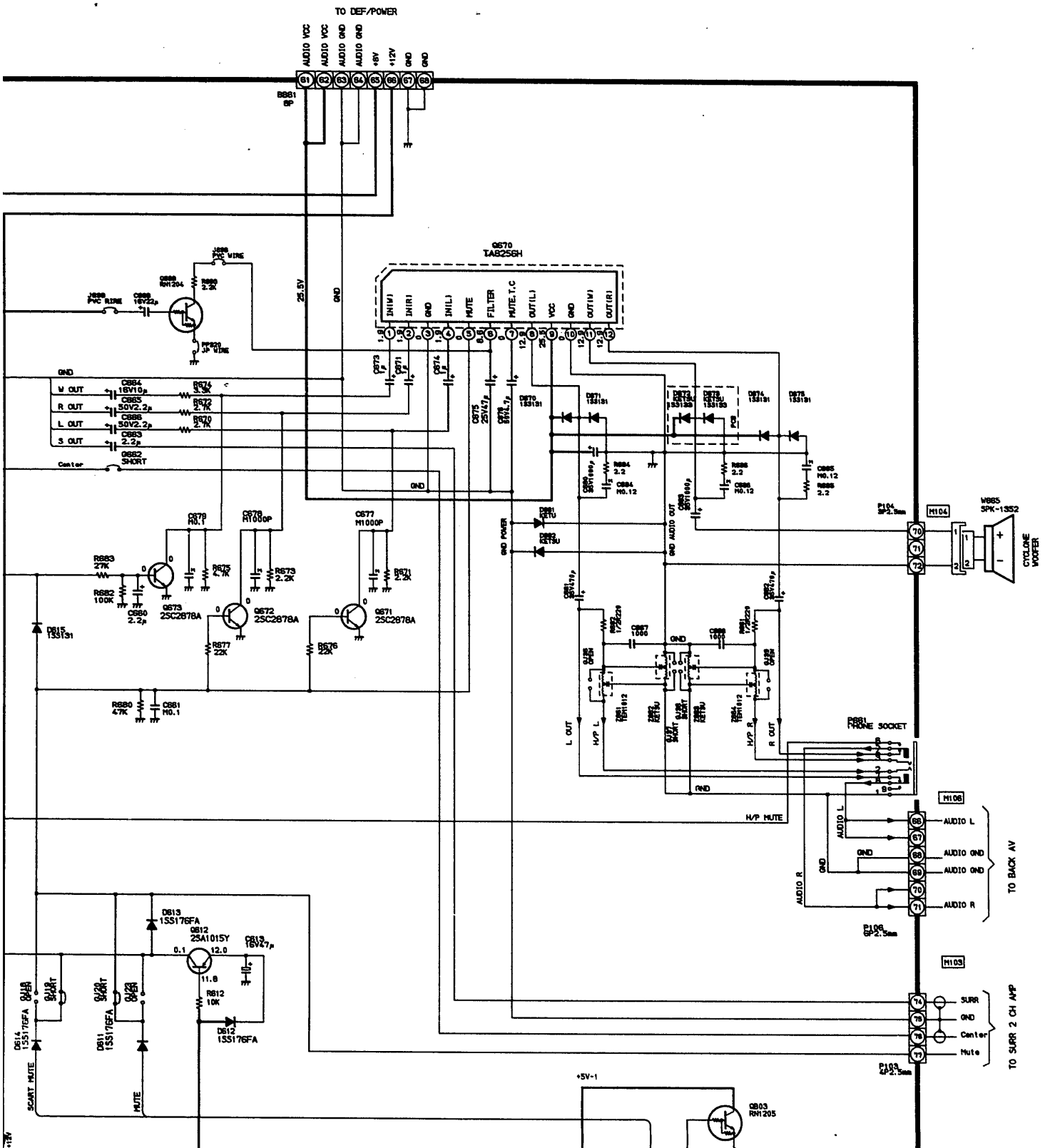
1. Resistance
2. Unless othe
   sed in μF a
3. Unless othe
   sed in μH, a

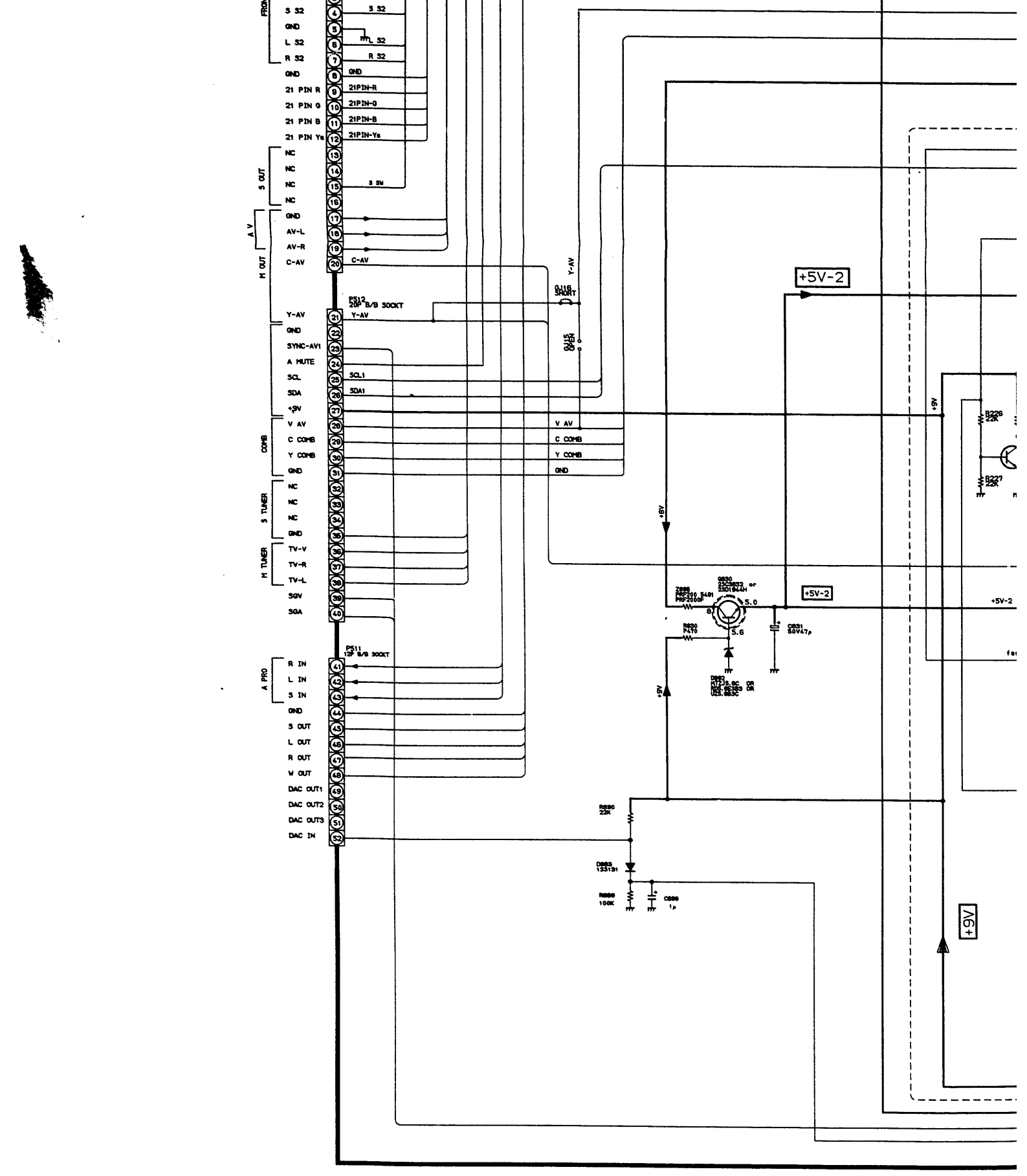


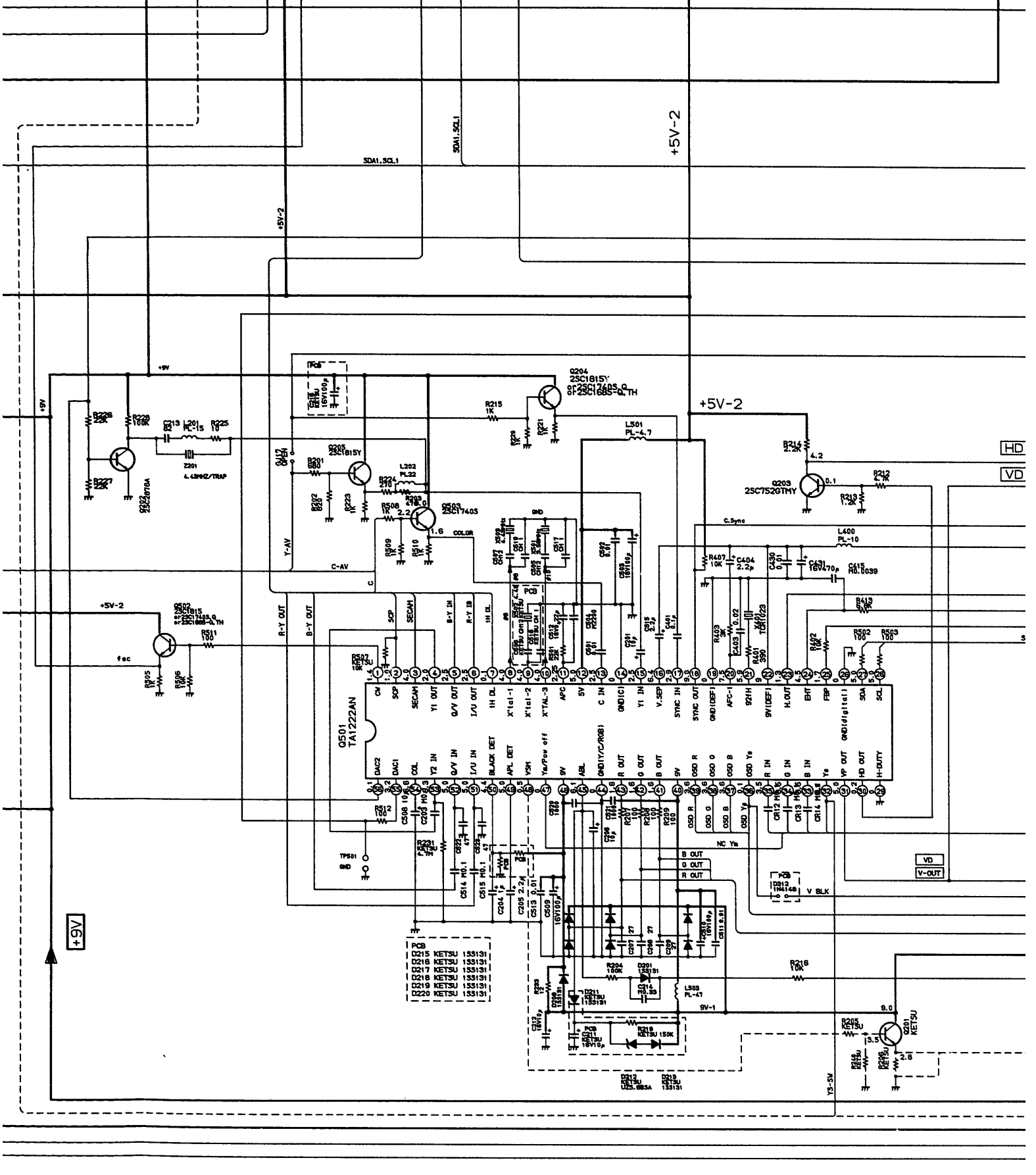
EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

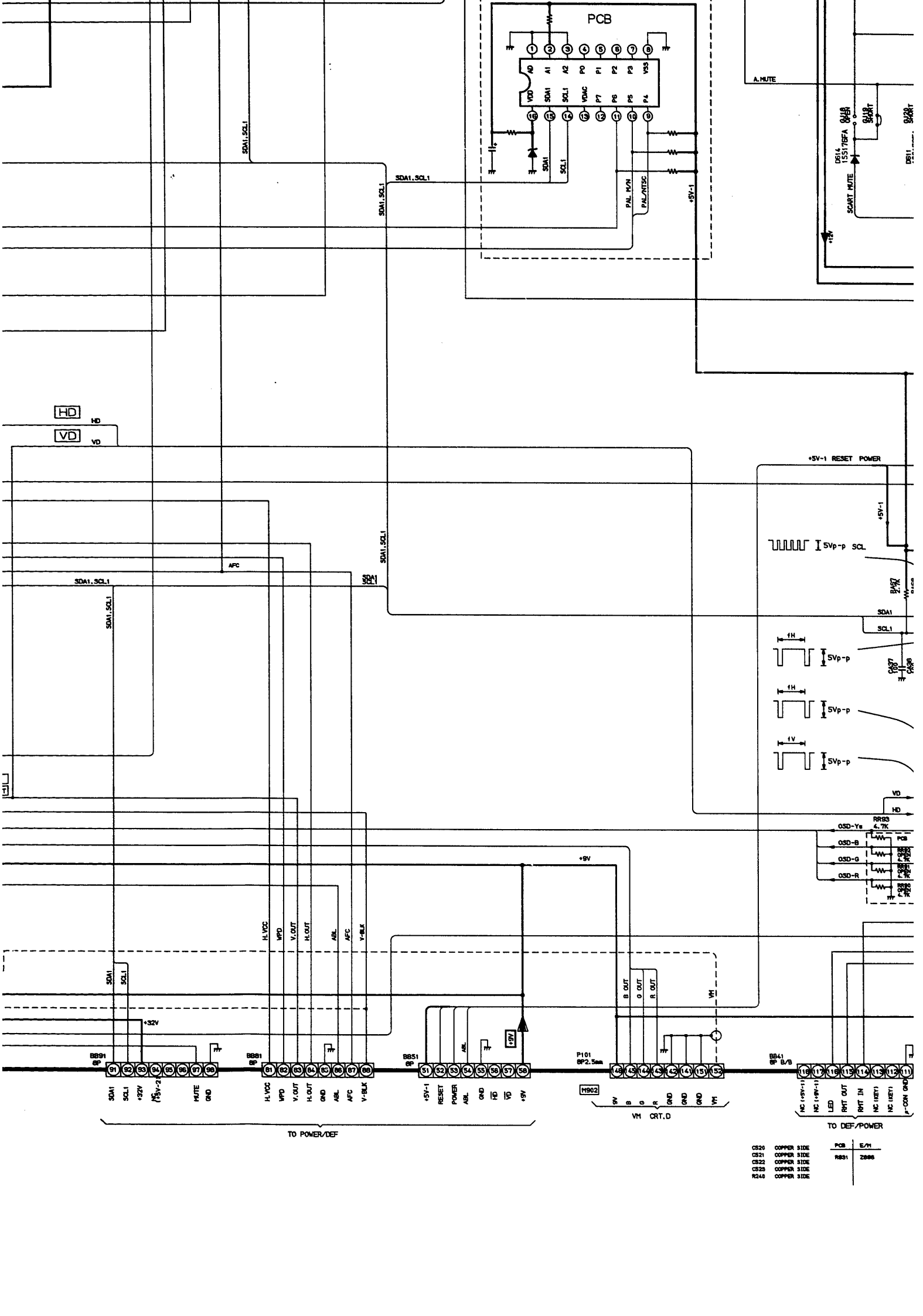
1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

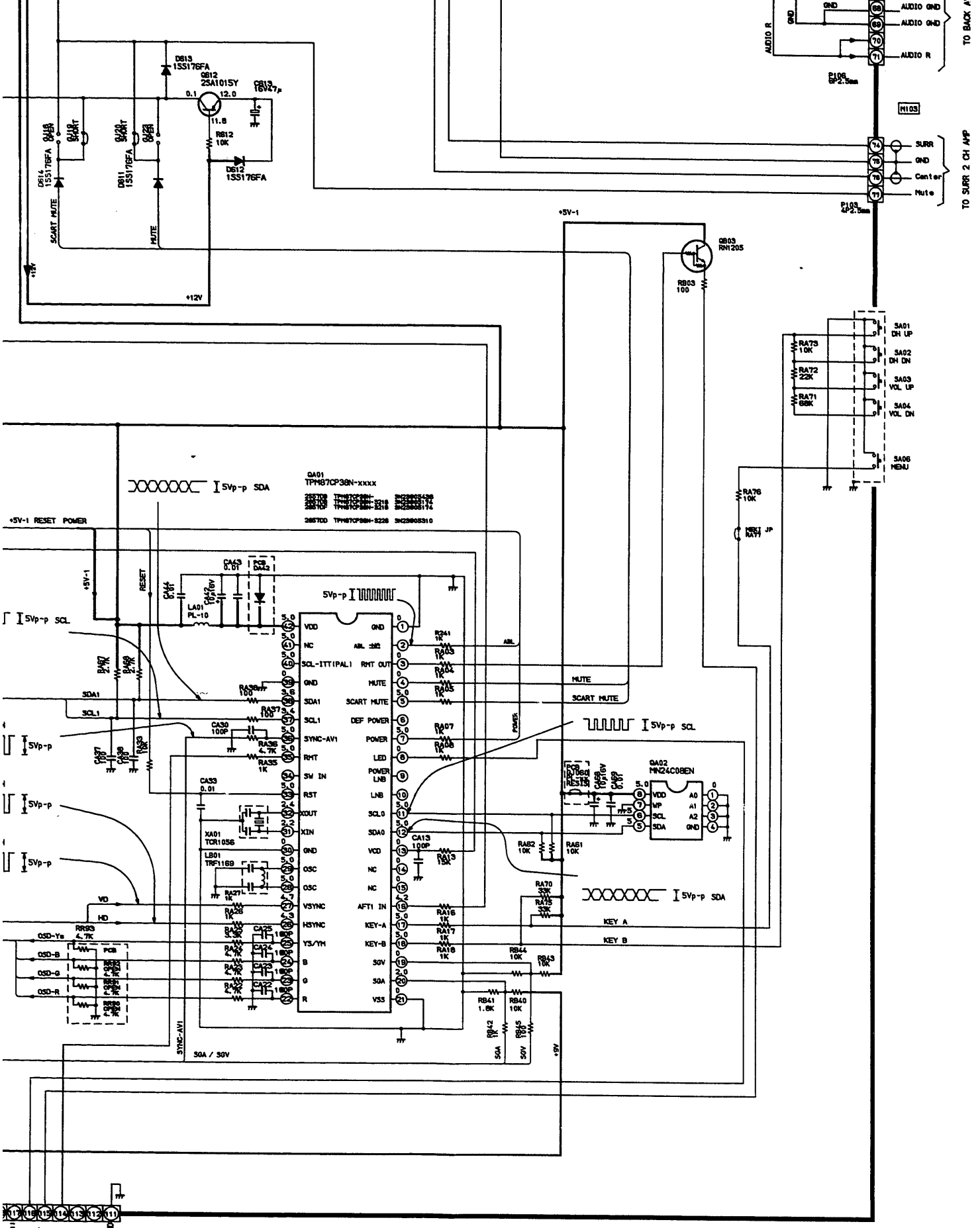



S 52
GND
L 52
R 52
GND
21 PIN R
21 PIN G
21 PIN B
21 PIN Ys
NC
NC
NC
NC
GND
AV-L
AV-R
C-AV
Y-AV
GND
SYNC-AV1
A MUTE
SCL
SDA
+9V
V AV
C COMB
Y COMB
GND
NC
NC
NC
GND
TV-V
TV-R
TV-L
SGV
SGA
R IN
L IN
S IN
GND
S OUT
L OUT
R OUT
M OUT
DAC OUT1
DAC OUT2
DAC OUT3
DAC IN
21PIN-R
21PIN-G
21PIN-B
21PIN-Ys
S SW
C-AV
Y-AV
SCL1
SDA1
V AV
C COMB
Y COMB
GND
+5V-2
+9V
+8V
5.0
5.6
8.1



MODEL	2557DB	28/33-OTHER
Z201	REQUIRE	NOT USE
L202	REQUIRE	NOT USE
R203	REQUIRE	SHORT
DOT LINE	NOT USE	REQUIRE


PCB
A.MUTE
SCART MUTE
+5V-1
SDA1,SCL1
PAL_H/N
PAL_NTSC
HD
VD
+5V-1 RESET POWER
5Vp-p SCL
SDA1
SCL1
AFC
1H
1V
5Vp-p
OSD-Ye
OSD-B
OSD-G
OSD-R
+9V
+32V
H.VCC
VPD
V.OUT
H.OUT
ABL
AFC
V-BLK
B.OUT
G.OUT
R.OUT
VH
BB91 6P
BB81 6P
BB51 6P
P101 8P2.5mm
BB41 8P B/B
SDA1
SCL1
+32V
+5V-2
MUTE
GND
H.VCC
VPD
V.OUT
H.OUT
GND
ABL
AFC
V-BLK
+5V-1
RESET
POWER
ABL
GND
HD
VD
+9V
H902
5V
B
G
R
GND
GND
GND
VH
VH CRT.D
NC (+5V-1)
NC (+9V-1)
LED
RMT OUT
RMT IN
NC (KEY1)
NC (KEY1)
P-CON GND
TO POWER/DEF
TO DEF/POWER
C520 COPPER SIDE
C521 COPPER SIDE
C522 COPPER SIDE
C525 COPPER SIDE
R240 COPPER SIDE
PCB
E/M
R831
2886

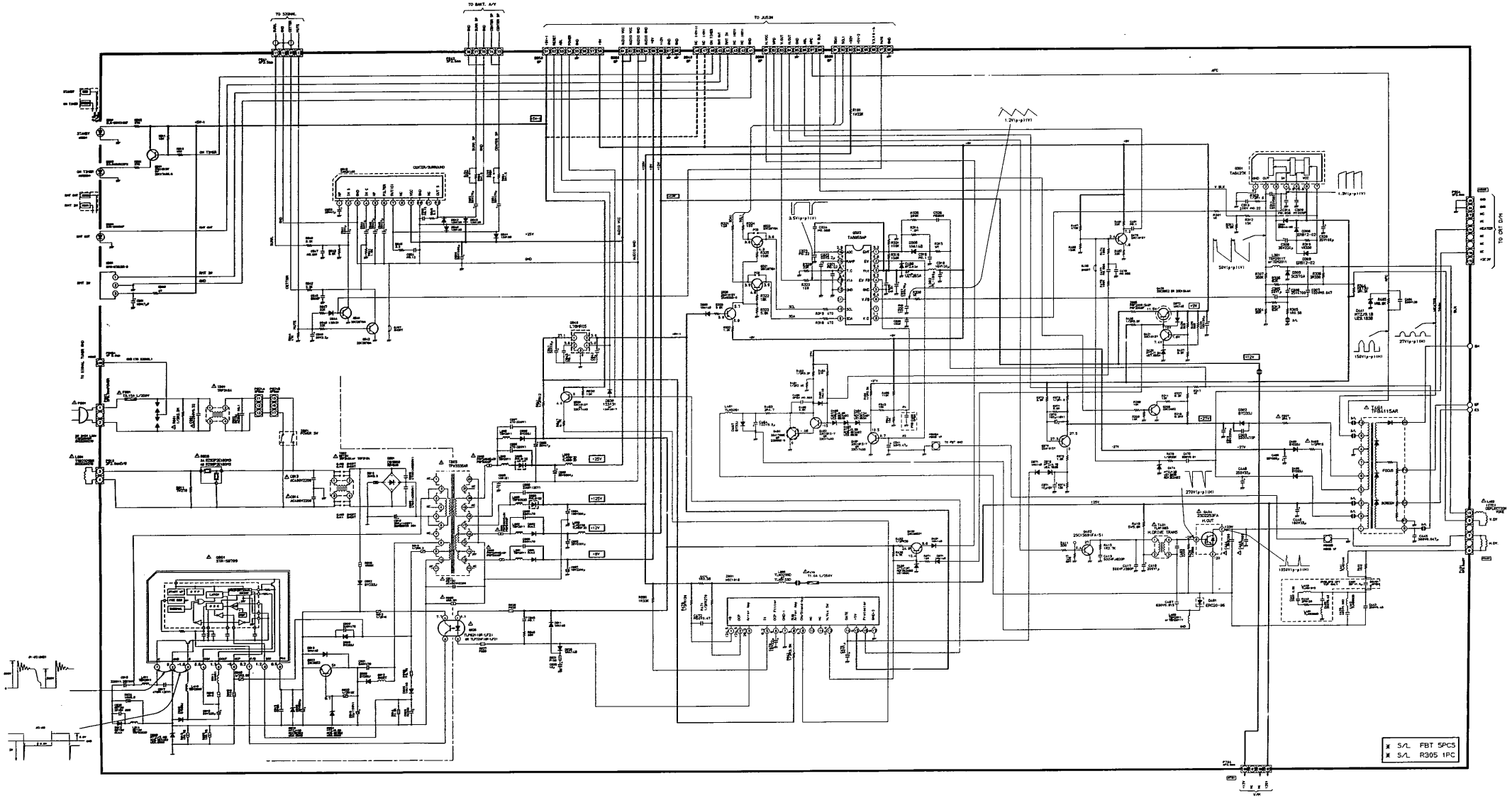


BASE/SEC95053-ADDED-25.

030 4611

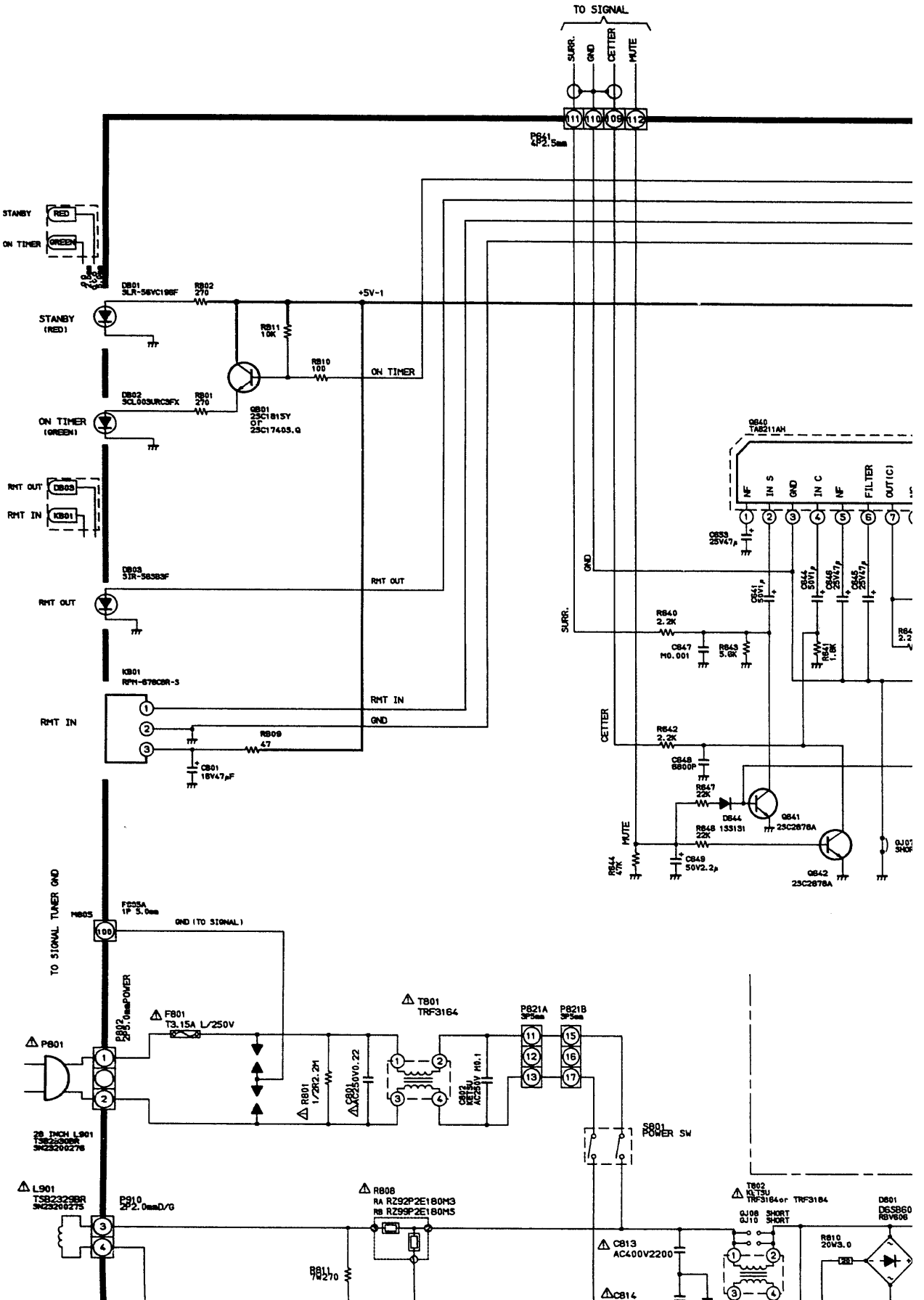
SCHEMATIC DIAGRAM MODEL: 2557DB (2/4)

U903 POWER/DEF BOARD 2557DB PB5656W

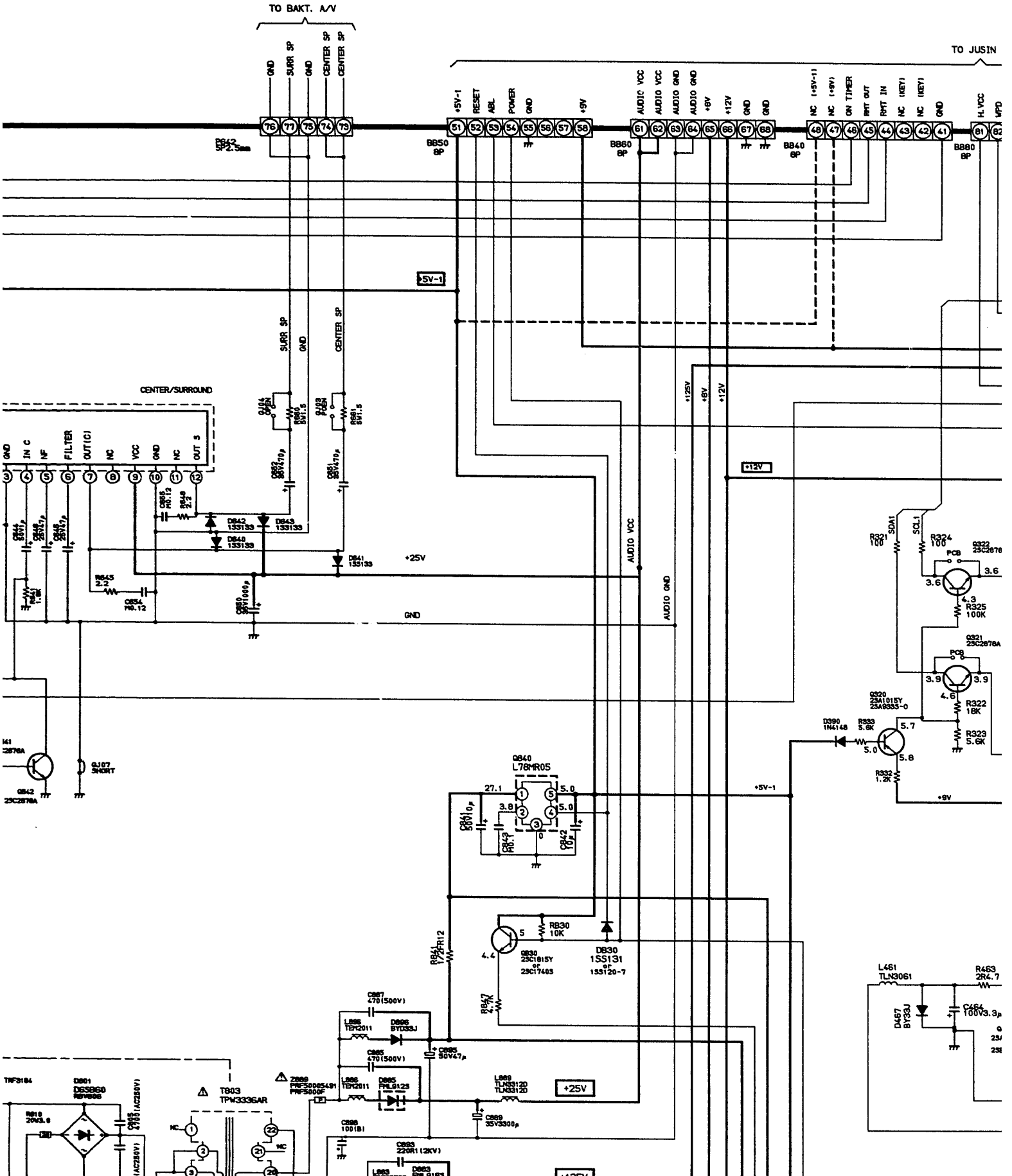


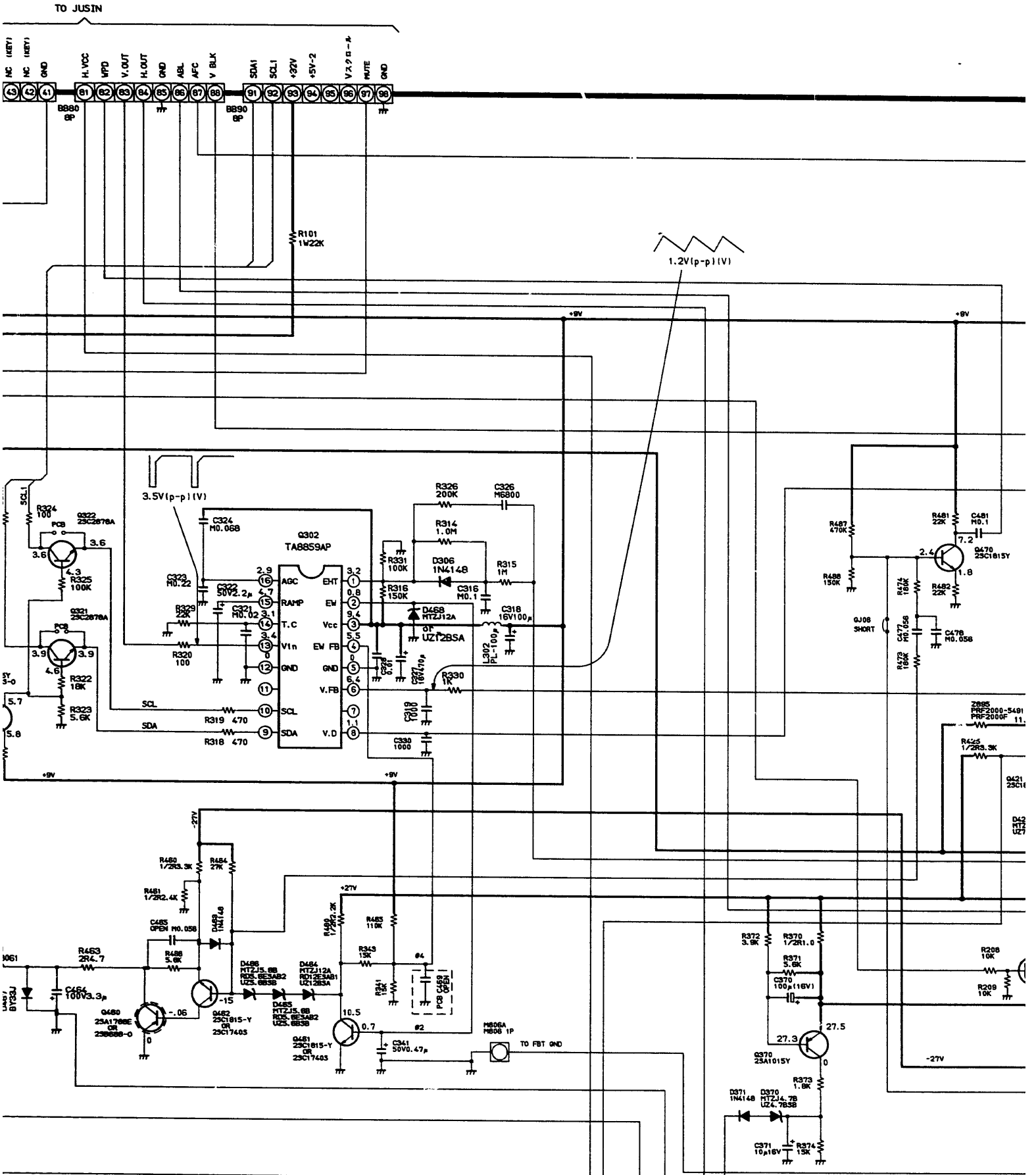
SCHEMATIC DIAGRAM MODEL: 2557DB (2/4)

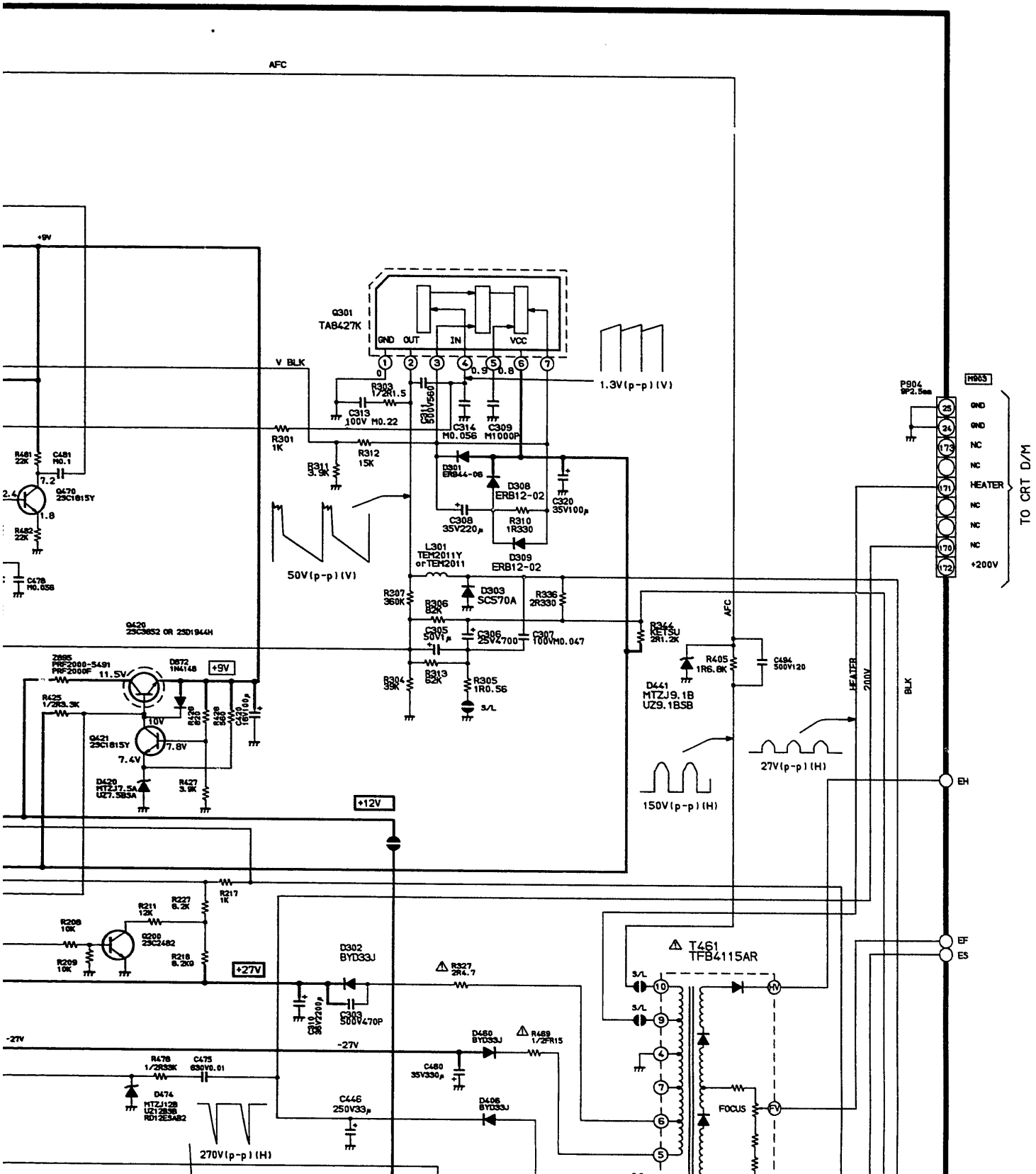
U903 POWER/DEF BOARD 2557DB PB5656W

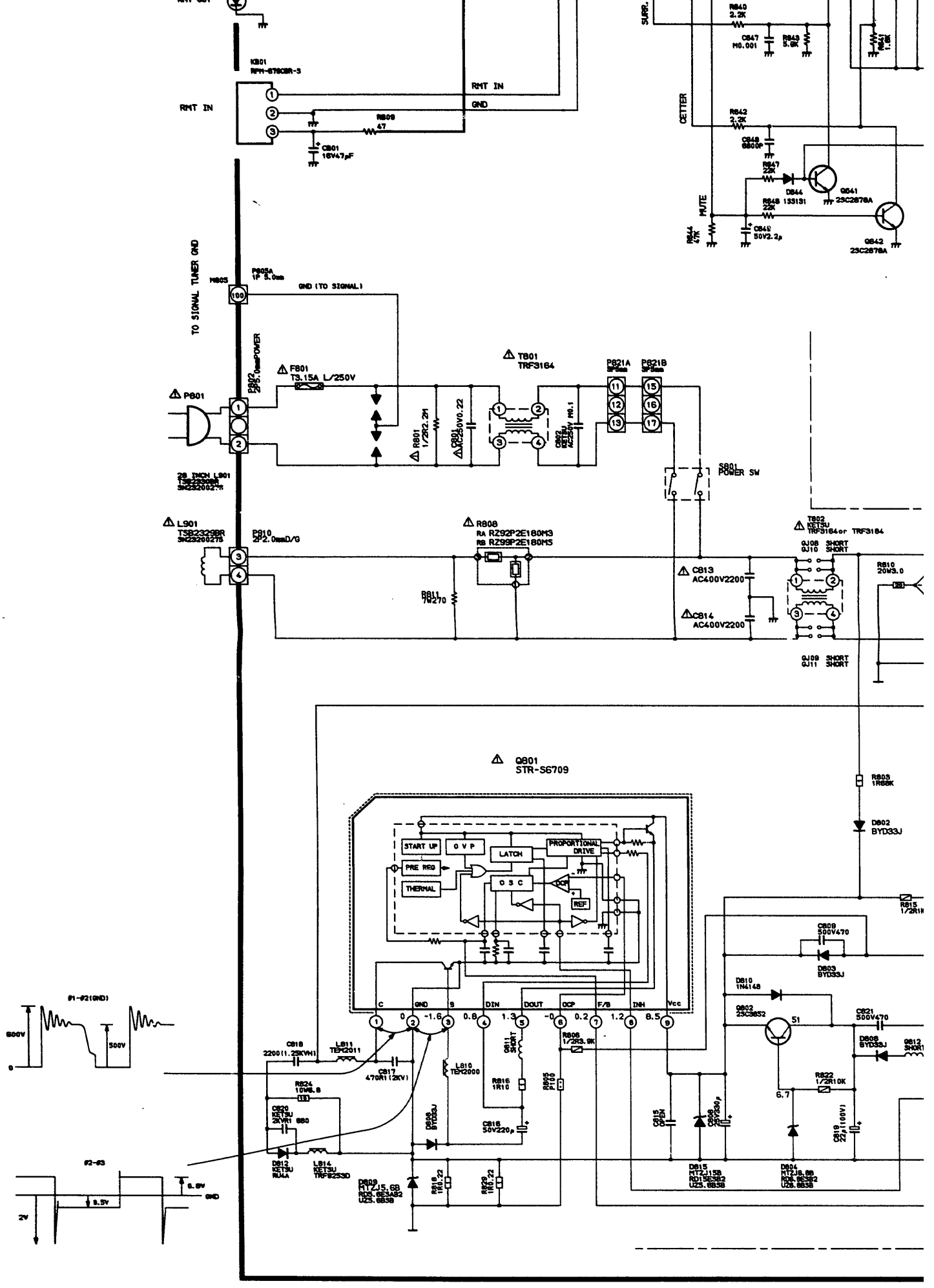


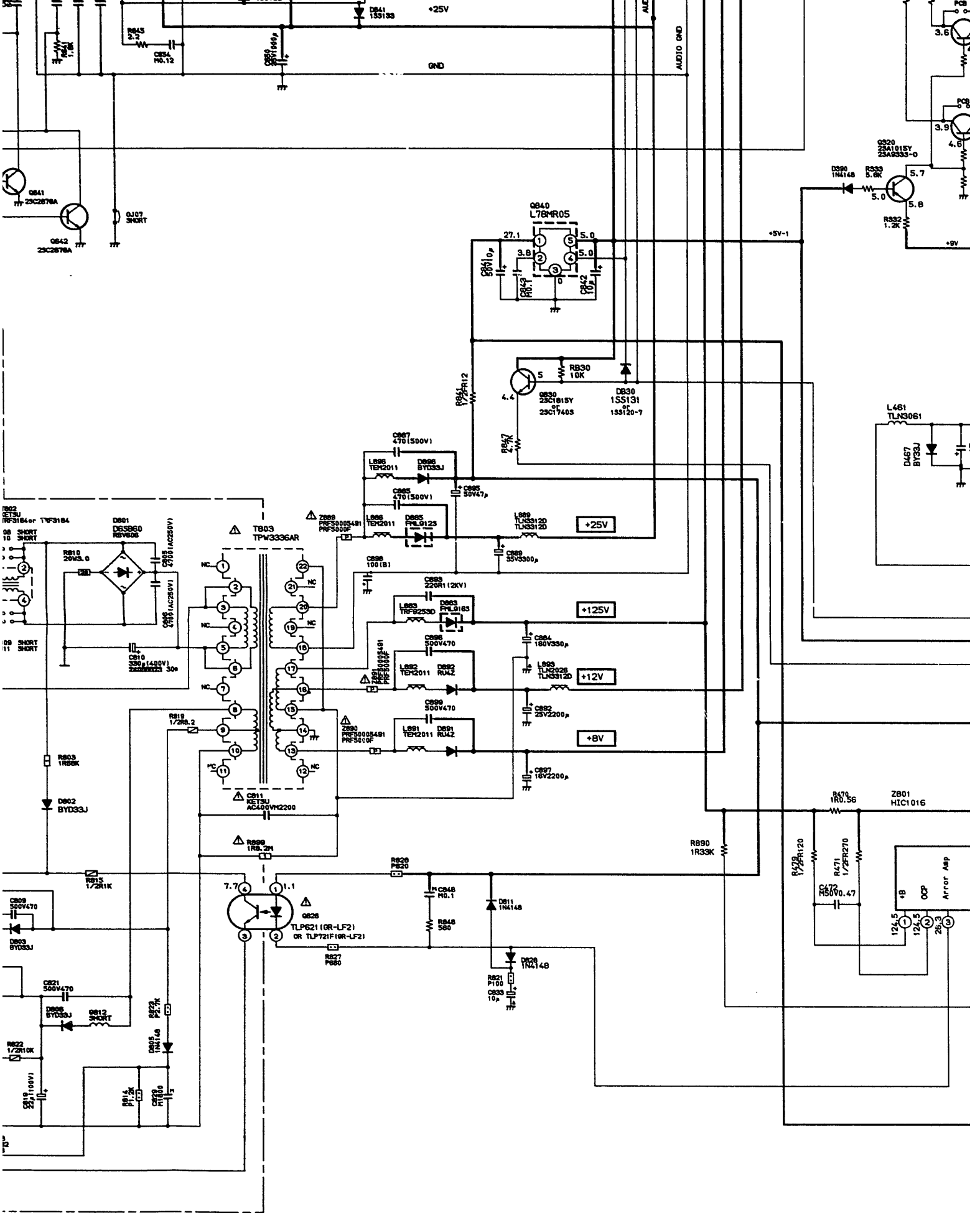
35656W

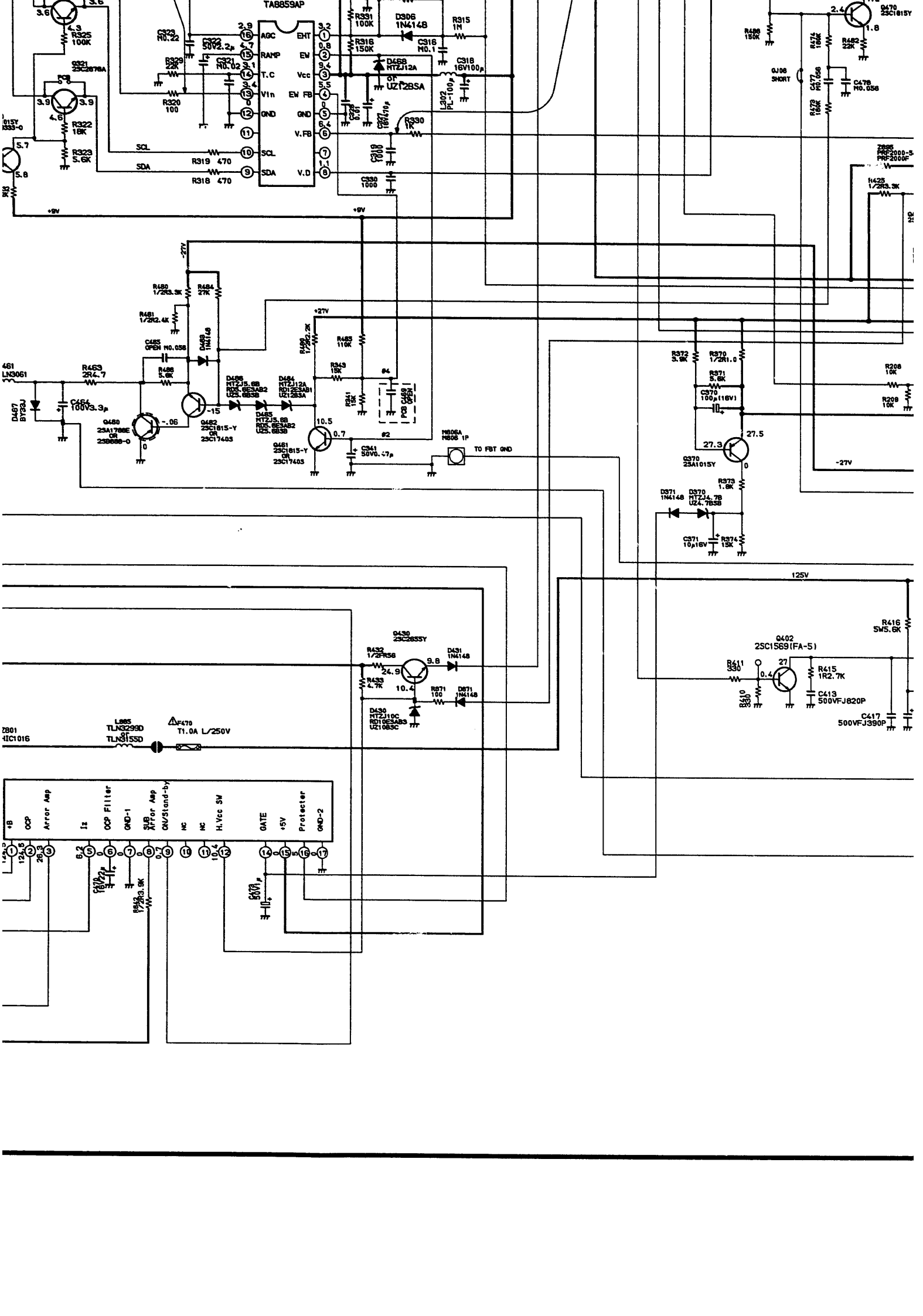

TO BAKT. A/V
GND
SURR SP
GND
CENTER SP
CENTER SP
TO JUSIN
+5V-1
RESET
ABL
POWER
GND
+5V
AUDIO VCC
AUDIO VCC
AUDIO GND
AUDIO GND
+8V
+12V
GND
GND
NC (+5V-1)
NC (+9V)
ON TIMER
RMT OUT
RMT IN
NC (KEY)
NC (KEY)
GND
H.VCC
VFD
BB50 8P
BB60 8P
BB40 8P
BB80 8P
CENTER/SURROUND
GND
IN C
NF
FILTER
OUT(C)
NC
VCC
GND
NC
OUT S
+25V
GND
AUDIO VCC
AUDIO GND
+12V
+8V
+12V
+5V-1
+9V
Q840 L78MR05
RB30 10K
DB30 1SS131
+25V
TB03 TPM3336AR
TRF3184
D901 DS5BS0
L461 TLN3061
R463 2R4.7
C464 100V3.3μ
D467 BY33J

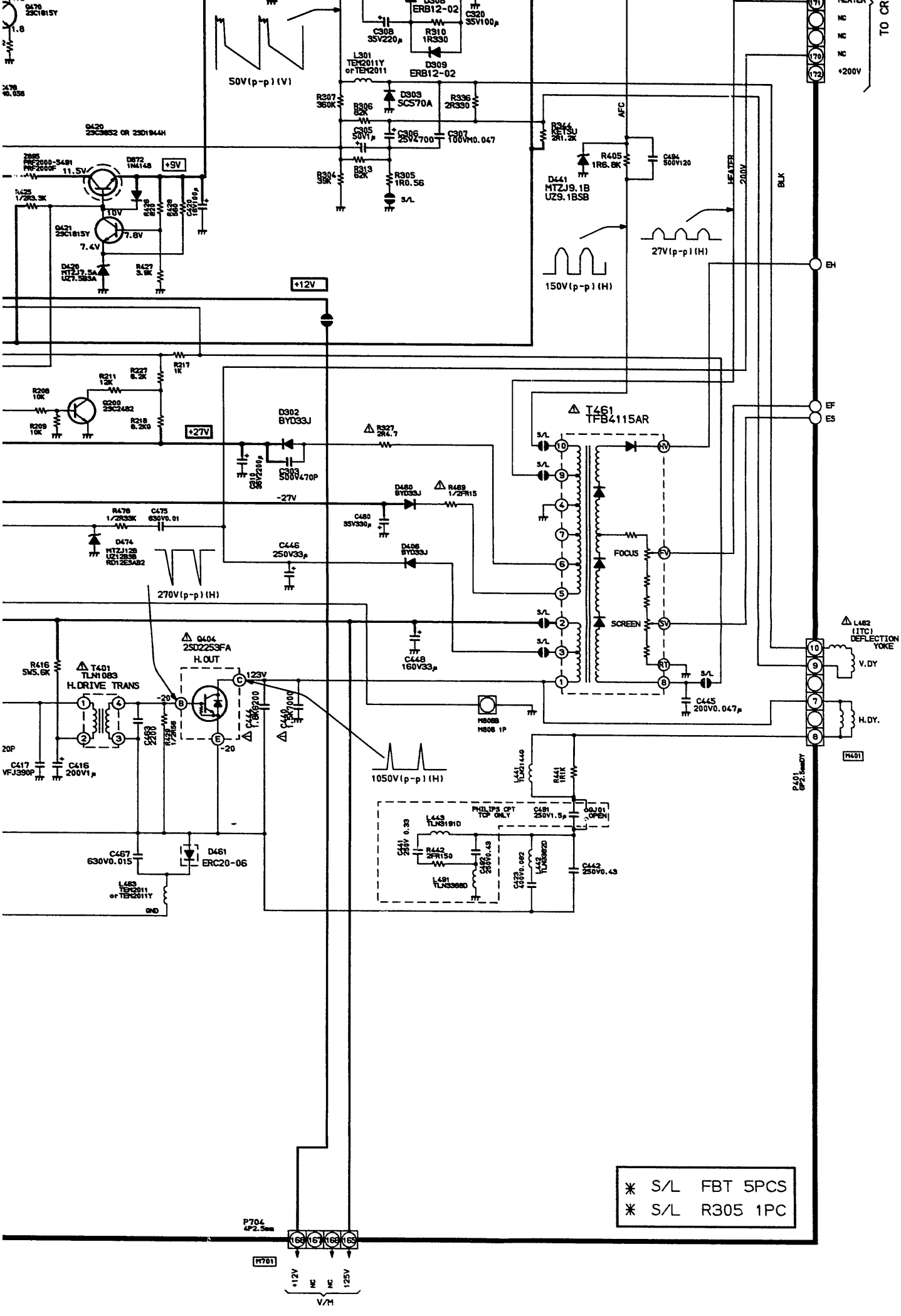

TO JUSIN
NC (KEY)
NC (KEY)
GND
H.VCC
VPD
V.OUT
H.OUT
GND
ABL
AFC
V BLK
SDA1
SCL1
+32V
+5V-2
ビスクロール
MUTE
GND
BB80 8P
BB90 8P
R101 1W22K
1.2V(p-p)(V)
+9V
3.5V(p-p)(V)
Q302 TA8859AP
AGC
RAMP
T.C
Vin
GND
SCL
SDA
EHT
EW
Vcc
EW FB
GND
V.FB
V.D
R326 200K
C326 M6800
R314 1.0M
D306 1N4148
R315 1M
R316 150K
C316 M0.1
C318 16V100μ
D468 MTZJ12A
or UZ12BSA
L302 PL-100μ
R330 1K
R331 100K
C324 M0.068
C323 M0.22
C322 50V2.2μ
C321 M0.02
R329 22K
R320 100
R324 100
R325 100K
R322 18K
R323 5.6K
R319 470
R318 470
Q322 2SC2878A
Q321 2SC2878A
PCB
C327 16V470μ
C328 0.01
C330 1000
C319 C320
R481 22K
C481 M0.1
R487 470K
R488 150K
Q470 2SC1815Y
R474 180K
R482 22K
R473 180K
C477 M0.056
C478 M0.056
GJ08 SHORT
-27V
R460 1/2R3.3K
R484 27K
R461 1/2R2.4K
C485 OPEN M0.056
D469 1N4148
R463 2R4.7
R488 5.6K
C464 100V3.3μ
D486 MTZJ5.6B
D484 MTZJ12A
D485 MTZJ5.6B
R482 1/2R2.2K
R485 110K
R343 15K
R341 15K
C469 OPEN
Q480 2SA1786E OR 2SB688-O
Q482 2SC1815-Y OR 2SC1740S
Q481 2SC1815-Y OR 2SC1740S
C341 50V0.47μ
M806A M806 1P
TO FBT GND
R372 3.9K
R370 1/2R1.0
R371 5.6K
C370 100μ(16V)
R208 10K
R209 10K
Q370 2SA1015Y
R373 1.8K
D371 1N4148
D370 MTZJ4.7B
C371 10μ16V
R374 15K
Z885 PRF2000-5491 PRF2000F


AFC
Q301
TA8427K
GND OUT IN VCC
V BLK
1.3V(p-p)(V)
R303 1/2R1.5
C313 100V M0.22
C311 500V560
C314 M0.056
C309 M1000P
R301 1K
R312 15K
R311 3.3K
D301 ERB44-06
D308 ERB12-02
C320 35V100μ
C308 35V220μ
R310 1R330
D309 ERB12-02
L301 TEM2011Y or TEM2011
50V(p-p)(V)
R207 360K
D303 SCS70A
R336 2R330
R306 82K
C305 50V1μ
C306 25V2700
C307 100VM0.047
R304 39K
R313 82K
R305 1R0.56
S/L
R481 22K
C481 M0.1
Q470 2SC1815Y
R482 22K
C478 M0.056
+9V
Q420 2SC3852 OR 2SD1944H
D872 1N4148
11.5V
10V
Q421 2SC1815Y
7.8V
7.4V
D420 MTZJ7.5A UZ7.5B5A
R427 3.9K
R425 1/2R3.3K
+12V
R344 KET3U 2R1.2K
AFC
R405 1R6.8K
C494 500V120
D441 MTZJ9.1B UZ9.1BSB
HEATER
200V
BLK
27V(p-p)(H)
150V(p-p)(H)
P904 9P2.5mm
M903
GND
GND
NC
NC
HEATER
NC
NC
NC
+200V
TO CRT D/M
EH
EF
ES
T461 TFB4115AR
S/L
S/L
HV
FV
FOCUS
R217 1K
R227 8.2K
R211 12K
R208 10K
Q208 2SC2482
R209 10K
R218 8.2K9
+27V
D302 BYD33J
R327 2R4.7
C312 35V2200μ
C303 500V470P
-27V
D480 BYD33J
R469 1/2FR15
C480 35V330μ
R478 1/2R33K
C475 630V0.01
D474 MTZJ12B UZ12B5B RD12ES.AB2
C446 250V33μ
D406 BYD33J
270V(p-p)(H)


RMT IN
GND
TO SIGNAL TUNER GND
GND (TO SIGNAL)
F801
T3.15A L/250V
T801
TRF3164
S801
POWER SW
Q801
STR-S6709
START UP
O V P
LATCH
PROPORTIONAL DRIVE
PRE REG
THERMAL
O S C
REF
C
GND
S
DIN
DOUT
OCP
F/B
INH
Vcc
D802
BYD33J
D803
BYD33J
D804
D805
D806
D807
D808
D809
D810
1N4148
D812
D813
D814
D815
SURR.
CETTER
MUTE
Q841
2SC2878A
Q842
2SC2878A
Q802
2SC3852
C847
M0.001
C848
6800P
C849
50V2.2μ
R840
2.2K
R842
2.2K
R844
47K
R847
22K
R848
22K
R849
5.6K
R841
1.8K
C809
500V470
C821
500V470
R803
1R68K
R806
1/2R3.9K
R822
1/2R10K
R815
1/2R1K
C813
AC400V2200
C814
AC400V2200
R808
RA RZ92P2E180M3
RB RZ99P2E180MS
R811
1W270
C818
2200(1.25KVH)
L811
TEH2011
C817
470R1(2KV)
L810
TEH2000
R824
10W5.6
C820
KET3U
3KVR1 680
D812
KET3U
RUAA
L814
KET3U
TRF82530
R816
1R10
R805
P10
C816
50V220μ
D809
R816
1R0.22
R829
1R0.22
C815
OPEN
C819
22μ(100V)
R809
47
C801
16V47μF
KB01
RMT-ST802R-3
P801
P802
P810
L901
TSB2329BR
P821A
P821B
C802
KET3U
AC250V
R801
1/2R2.2M
C803
AC250V0.22
GJ08 SHORT
GJ10 SHORT
GJ09 SHORT
GJ11 SHORT
T802
KET3U
TRF3164or TRF3184
R810
20W3.0
S1-S2(GND)
S2-S3
500V
0
2V
GND


+25V
GND
AUDIO GND
Q840
L78MR05
+5V-1
RB30
10K
DB30
1SS131
+25V
+125V
+12V
+8V
TB03
TPW3336AR
D801
D6SB60
R810
20W3.9
R803
1R56K
D802
BYD33J
R815
1/2R1K
R819
1/2R8.2
R811
1/2R1K
R822
1/2R10K
R827
P680
Q826
TLP621(GR-LF2)
OR TLP721F(GR-LF2)
D811
1N4148
D828
1N4148
R821
P100
R890
1R33K
Z801
HIC1016
R470
1R0.56
R471
1/2FR270
R472
1/2FR120
C472
M500.47
+B
OCP
Error Amp
Q841
2SC2878A
Q842
2SC2878A
Q807
SHORT
Q812
SHORT
D390
1N4148
R333
5.6K
Q920
2SA1015Y
or
2SA933S-O
R332
1.2K
+8V
L461
TLN3061
D467
BY33J


TA8859AP
AGC
RAMP
T.C
Vin
GND
SCL
SDA
EHT
EW
Vcc
EW FB
GND
V.FB
V.D
+9V
-27V
+27V
125V
TO FBT GND
Q402
2SC1569(FA-5)
Q430
2SC2655Y
Q480
2SA1786E
Q482
2SC1815-Y
Q461
2SC1815-Y
Q370
2SA1015Y
F479
T1.0A L/250V
+B
OCP
Arror Amp
Iz
OCP Filter
GND-1
SUB Arror Amp
ON/Stand-by
NC
NC
H.Vcc SW
GATE
+5V
Protecter
GND-2

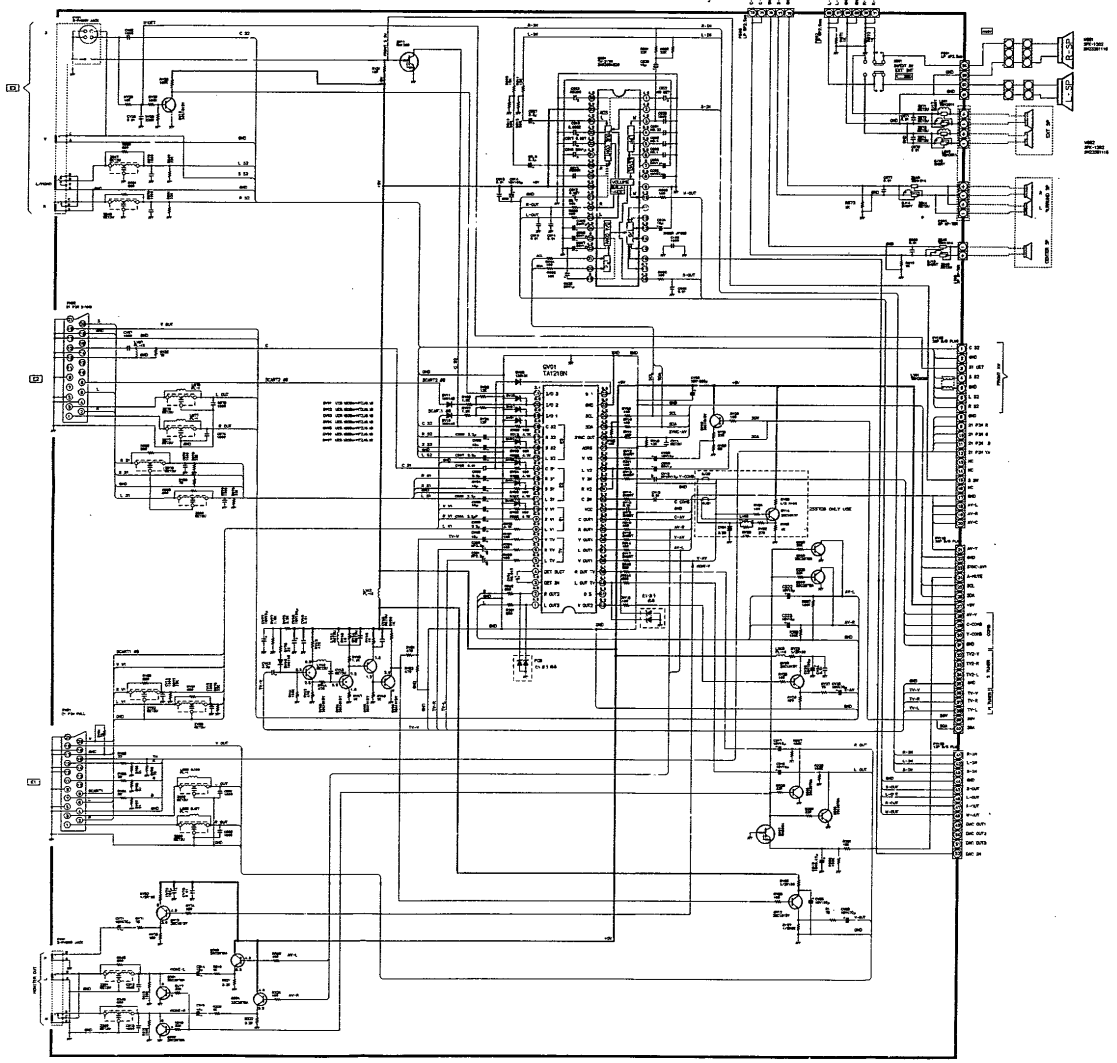

50V(p-p)(V)
+9V
+12V
+27V
-27V
+200V
27V(p-p)(H)
150V(p-p)(H)
270V(p-p)(H)
1050V(p-p)(H)
T461
TFB4115AR
FOCUS
SCREEN
H.DRIVE TRANS
H.OUT
DEFLECTION YOKE
V.DY
H.DY.
PHILIPS CPT
TCP ONLY
* S/L FBT 5PCS
* S/L R305 1PC

030 9611

SCHEMATIC DIAGRAM MODEL: 2557DB (3/4)

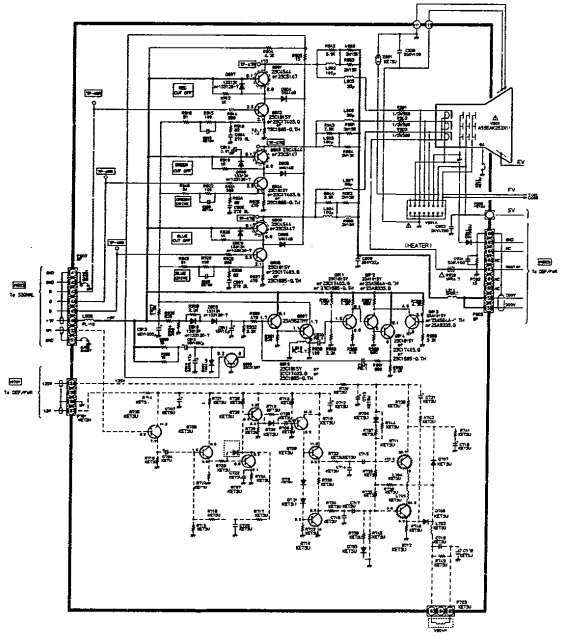
MODEL	GJ21	GJ22
2557DB	OPEN	OPEN
OTHER	FIT	FIT

U904 BACK-T AV BOARD PB5657Y 2557DB



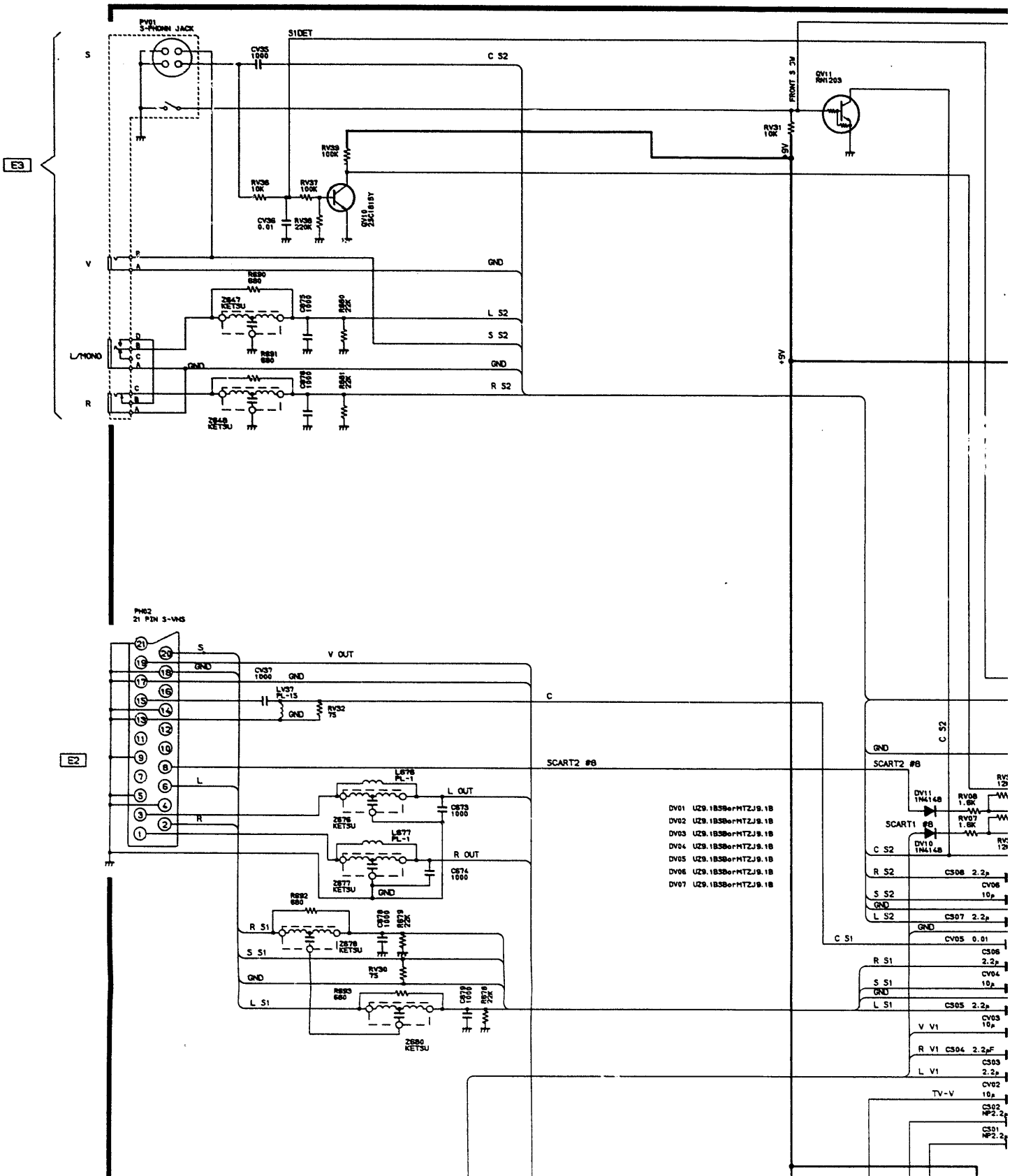
U905 CRT-D/WITHOUT DSM
CRT-D/DSM BOARD PB5659W 2557DB

V901 CPT
A59EAK252X11



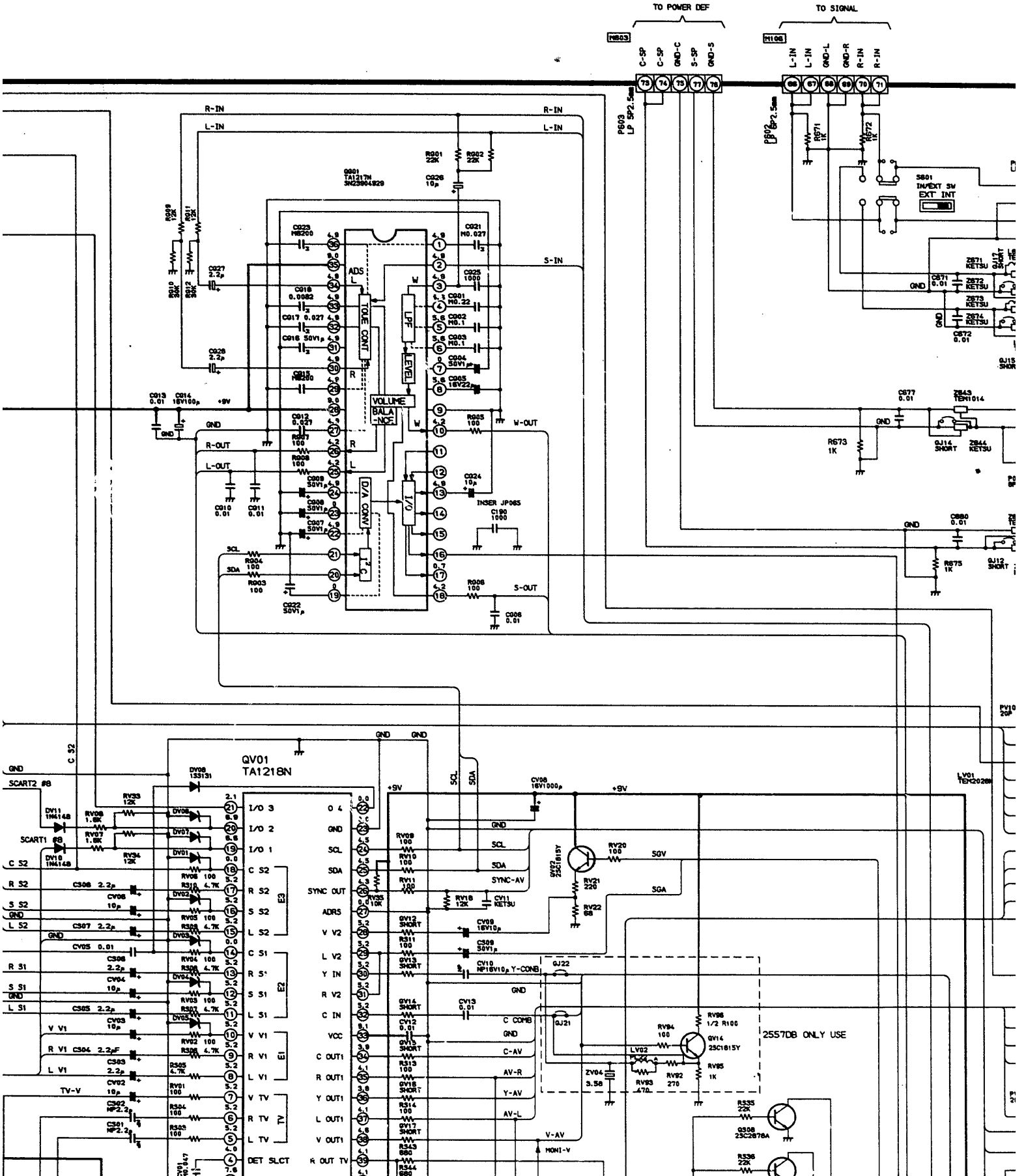
SCHEMATIC DIAGRAM MODEL: 2557DB

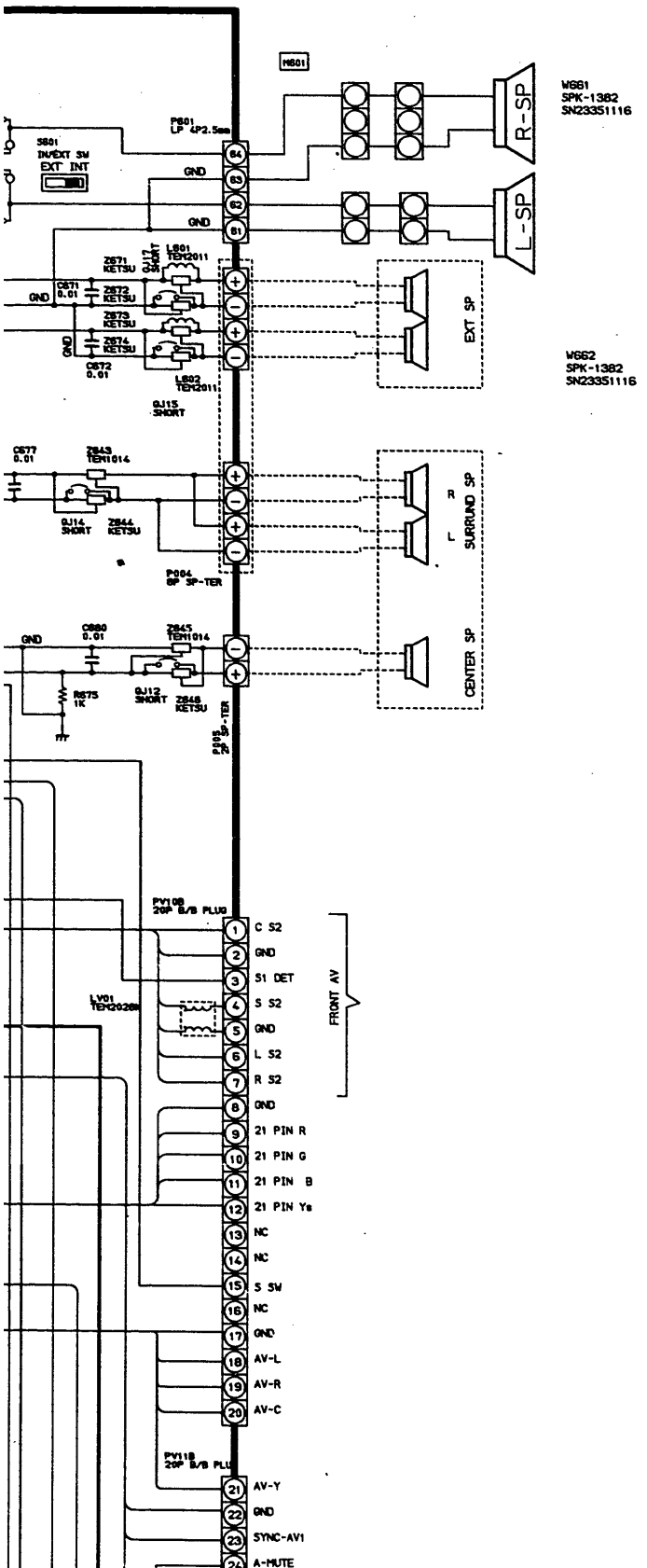
U904 BACK-T AV BOARD PB5657Y 2557DB



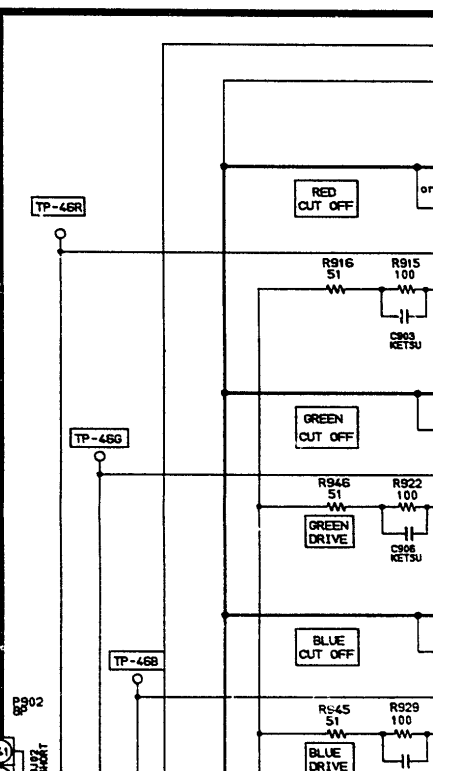
7DB (3/4)

MODEL	GJ21	GJ22
2557DB	OPEN	OPEN
OTHER	FIT	FIT

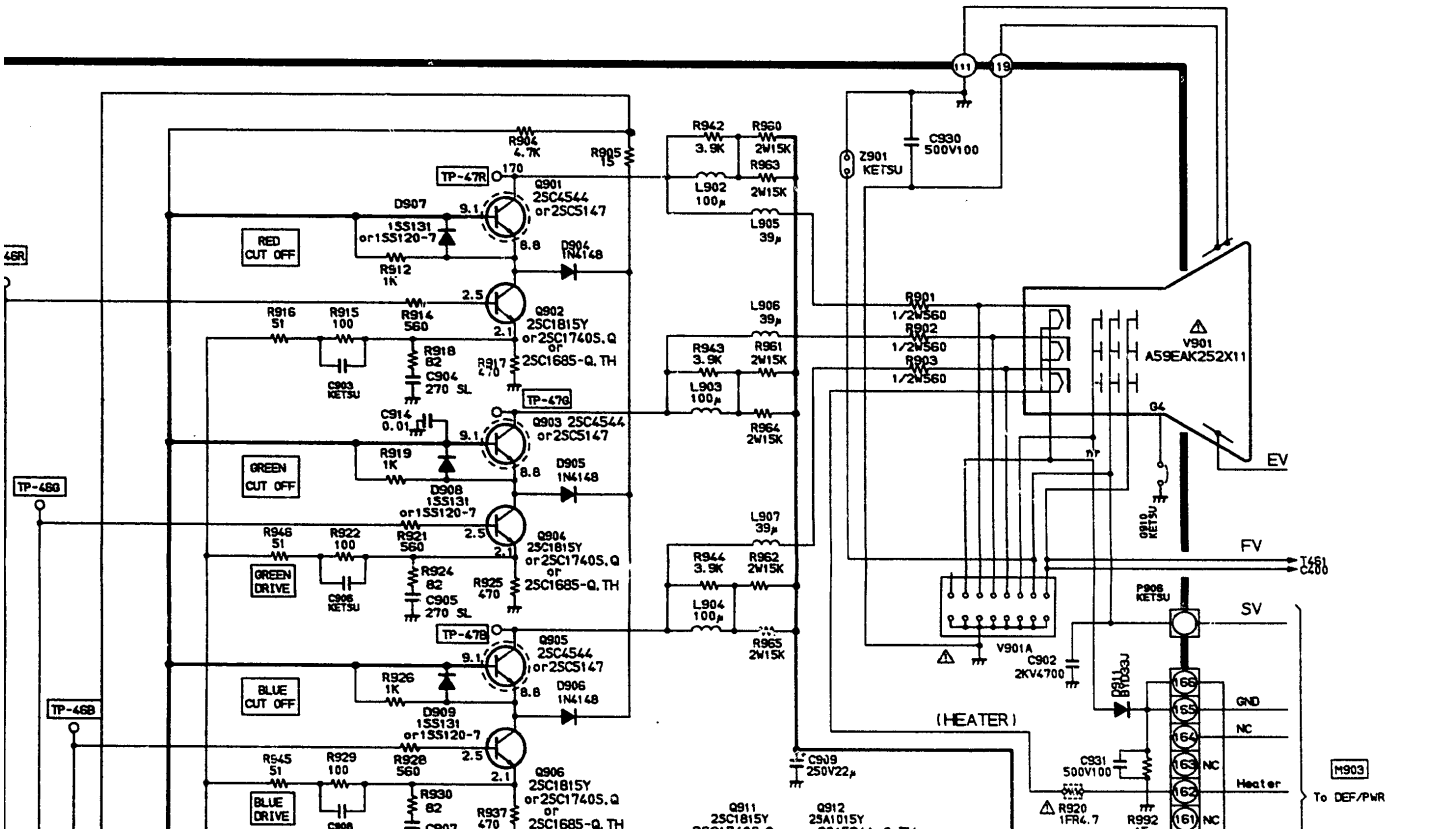


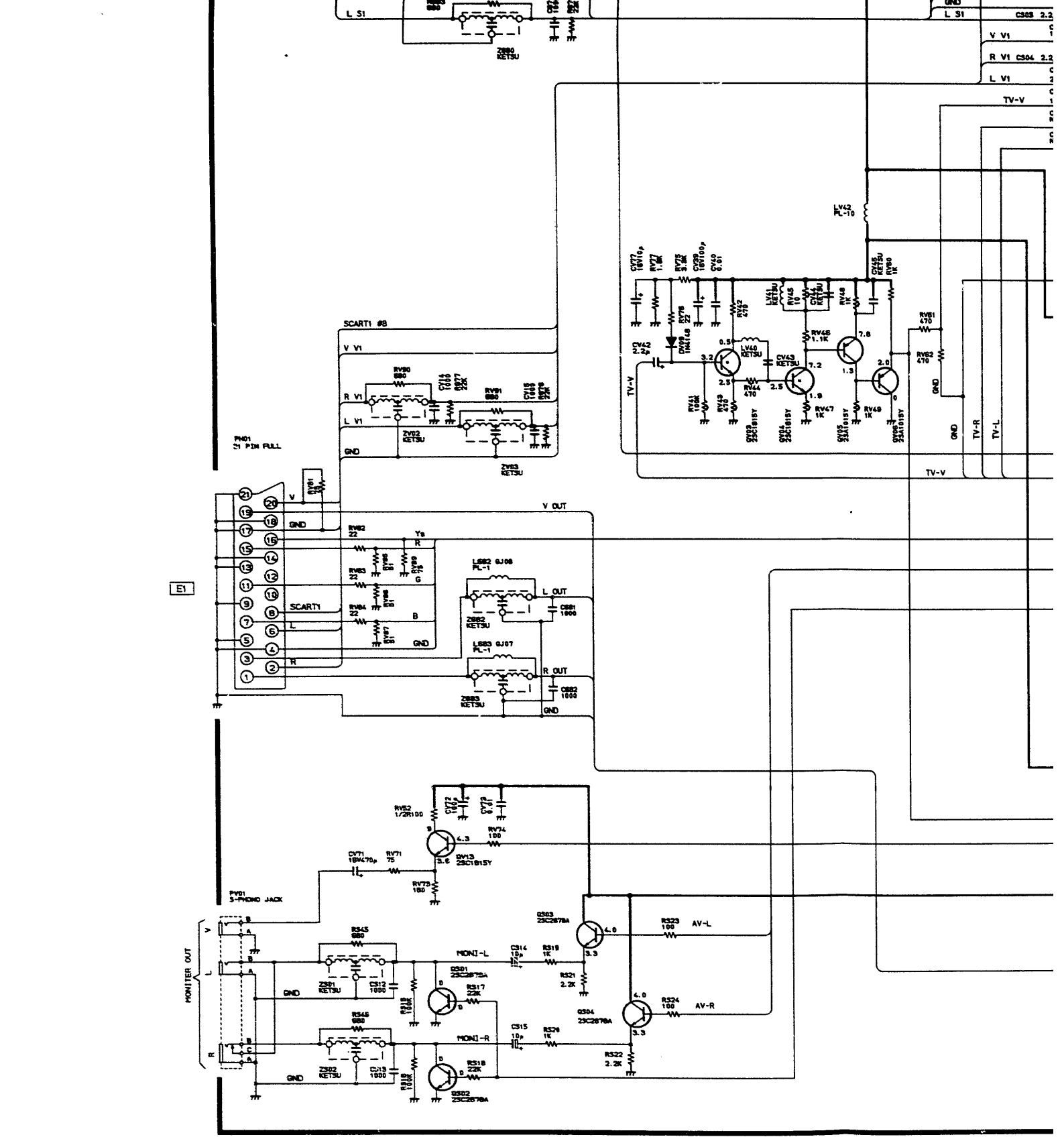


U905 CRT-D/WITH
CRT-D/DSM

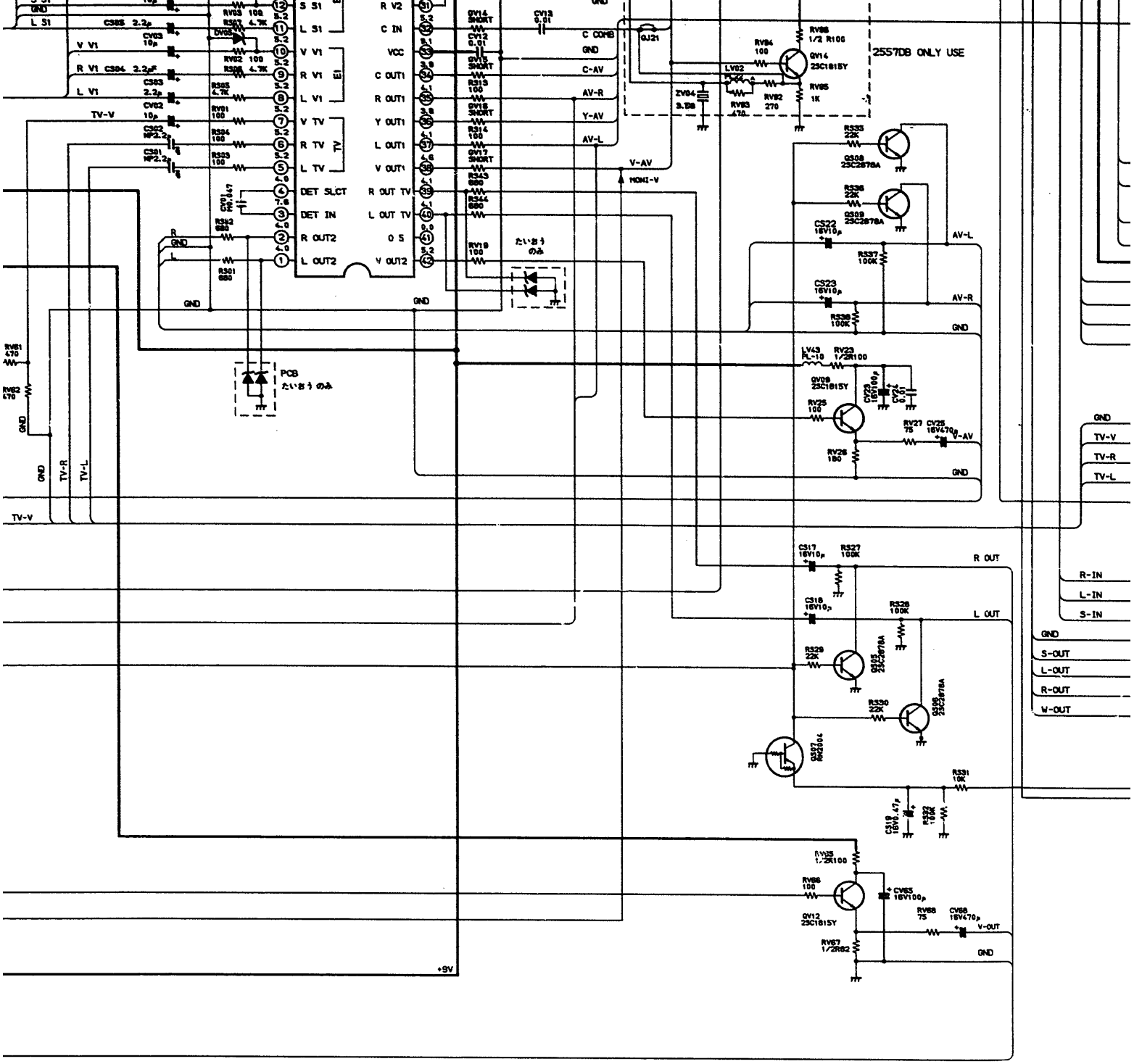


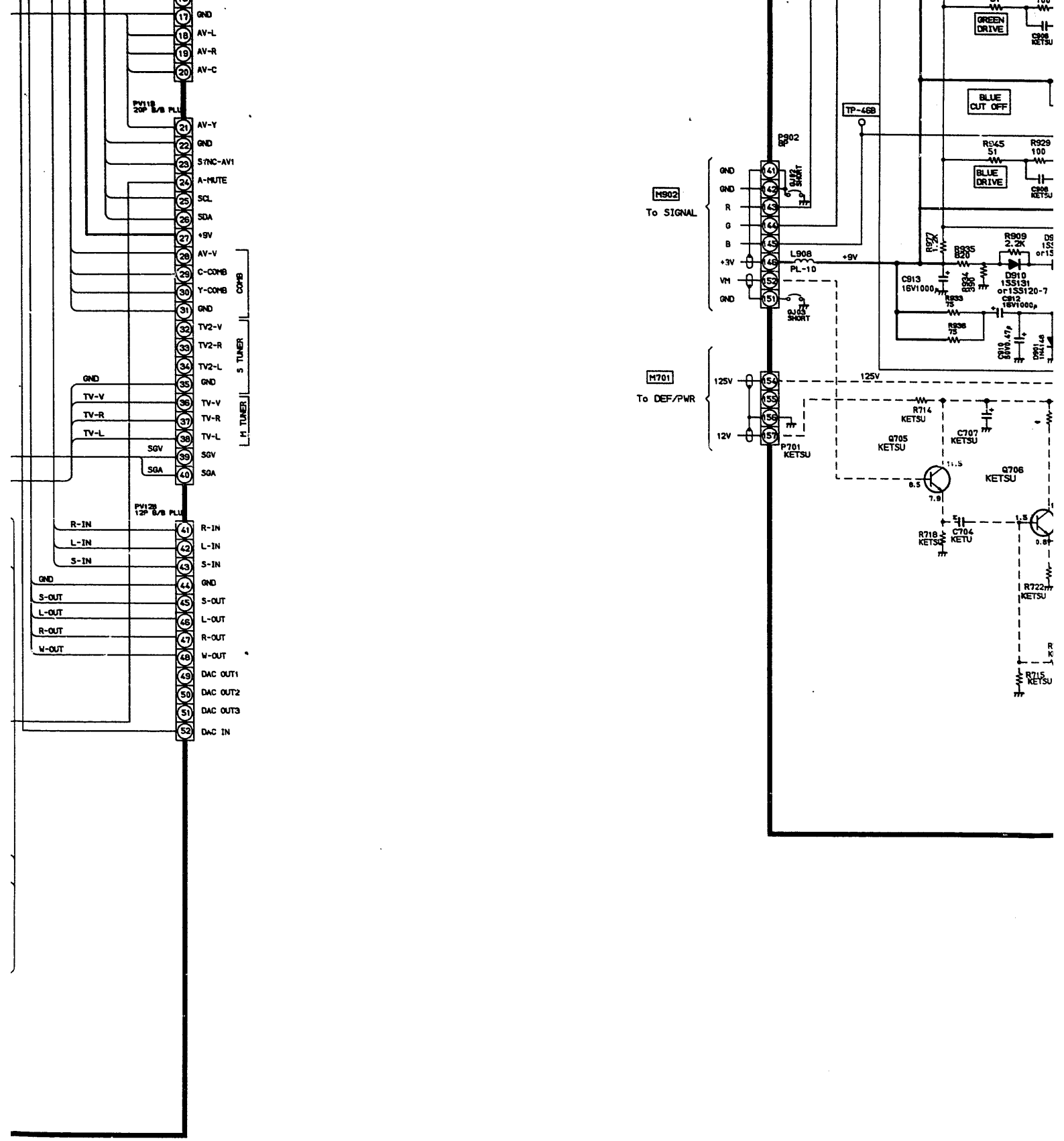
)05 CRT-D/WITHOUT DSM V901 CPT
CRT-D/DSM BOARD PB5659W 2557DB A59EAK252X11

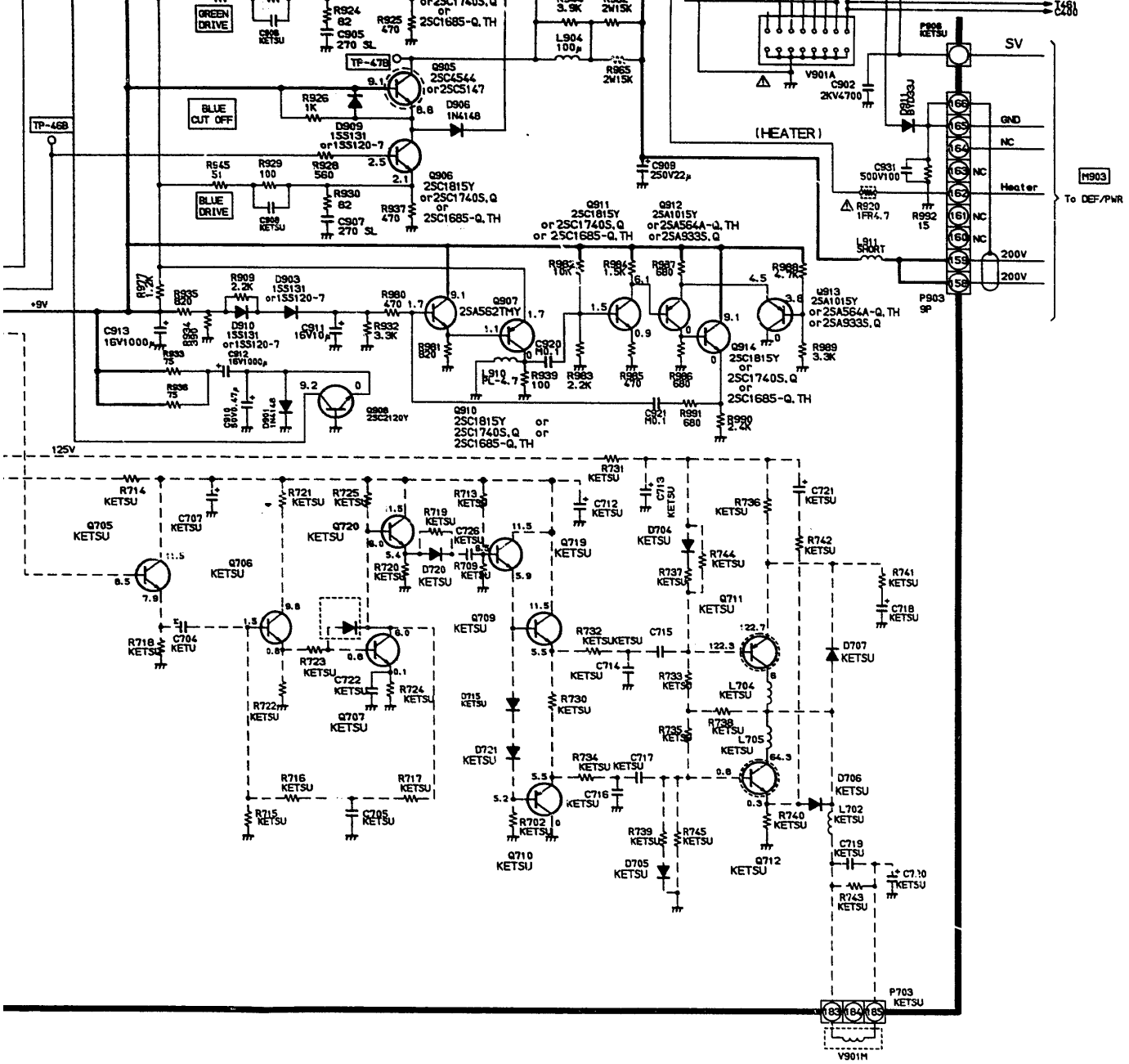




	2857DB	2557DB
GJ01 ZS02	RS46	SAME AS LEFT
GJ02 ZS01	RS45	DITTO
GJ03 ZS48	RS91	
GJ04 ZS78	RS92	
GJ05 ZS47	RS90	
GJ06 ZS80	RS93	
GJ07 ZS83	LS83	
GJ08 ZS82	LS82	
GJ09 ZV02	RV90	
GJ10 ZV03	RV91	
GJ11 ZS45	OPEN	
GJ12 ZS46	SHORT	
GJ13 ZS43	OPEN	
GJ14 ZS44	SHORT	
GJ15 ZS74	SHORT	
GJ16 ZS73	LS02	
GJ17 ZS72	SHORT	
GJ18 ZS71	LS01	
GJ19 ZS77	OPEN	
GJ20 ZS76	OPEN	
GJ21	SHORT	OPEN
GJ22	SHORT	OPEN


2557DB ONLY USE
PCB
たいおう のみ
R OUT
L OUT
V-OUT
R-IN
L-IN
S-IN
S-OUT
L-OUT
R-OUT
W-OUT
TV-V
TV-R
TV-L
AV-L
AV-R
V-AV
MONI-V
Y-AV
C-AV
C COMB
+9V
GND

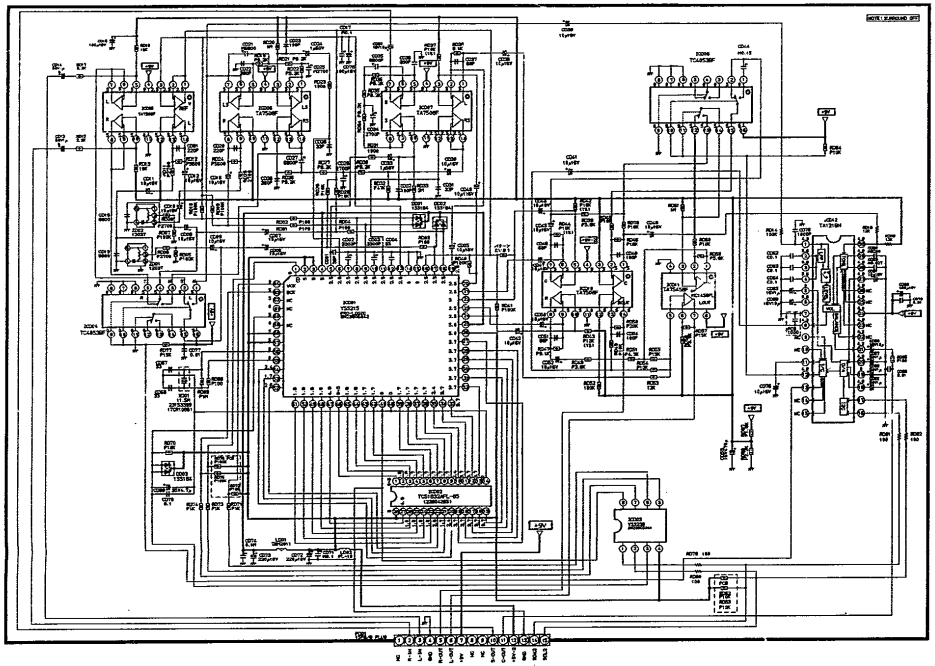

GND
AV-L
AV-R
AV-C
PV118 20P B/B PLUG
AV-Y
GND
SYNC-AV1
A-MUTE
SCL
SDA
+9V
AV-V
C-COMB
Y-COMB
COMB
GND
TV2-V
TV2-R
TV2-L
S TUNER
GND
TV-V
TV-R
TV-L
M TUNER
SGV
SGA
PV128 12P B/B PLUG
R-IN
L-IN
S-IN
GND
S-OUT
L-OUT
R-OUT
W-OUT
DAC OUT1
DAC OUT2
DAC OUT3
DAC IN
M902
To SIGNAL
GND
GND
R
G
B
+3V
VM
GND
SHORT
SHORT
M701
To DEF/PWR
125V
12V
P701
KETSU
L908
PL-10
+9V
TP-46B
GREEN DRIVE
BLUE CUT OFF
BLUE DRIVE
R545
51
R929
100
R927
1.2K
R909
2.2K
R935
820
R934
820
R933
75
R936
75
C913
16V1000μ
C912
16V1000μ
C910
50V0.47μ
D910
1SS131
or1SS120-7
R714
KETSU
C707
KETSU
Q705
KETSU
Q706
KETSU
R718
KETSU
C704
KETU
R722
KETSU
R715
KETSU


GREEN DRIVE
BLUE CUT OFF
BLUE DRIVE
TP-468
TP-478
Q905 2SC4544 or 2SC5147
Q906 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q907 2SA562TMY
Q908 2SC2120Y
Q909 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q910 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q911 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q912 2SA1015Y or 2SA564A-Q,TH or 2SA933S,Q
Q913 2SA1015Y or 2SA564A-Q,TH or 2SA933S,Q
Q914 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
D906 1N4148
D909 1SS131 or 1SS120-7
D910 1SS131 or 1SS120-7
D903 1SS131 or 1SS120-7
L904 100μ
L910 PC-4.7
L911 SHORT
C909 250V22μ
C913 16V1000μ
C912 16V1000μ
C911 16V10μ
C920 H0.1
C921 H0.1
C931 500V100
C902 2KV4700
R905 2W15K
R920 1FR4.7
R992 15
R989 3.3K
R980 2.4K
R991 680
R983 2.2K
R985 470
R986 680
R939 100
R932 3.3K
R933 75
R936 75
R937 470
R924 82
R925 470
R926 1K
R927 2K
R929 100
R928 560
R930 82
R931 820
R934 820
R935 820
R545 51
R909 2.2K
R907 10K
R984 1.5K
R987 680
R988 4.7K
V901A
V901M
P906 KETSU
P903 9P
P703 KETSU
M903
SV
GND
NC
Heater
200V
To DEF/PWR
(HEATER)
+9V
125V
Q705 KETSU
Q706 KETSU
Q707 KETSU
Q709 KETSU
Q710 KETSU
Q711 KETSU
Q712 KETSU
Q719 KETSU
Q720 KETSU
D704 KETSU
D705 KETSU
D706 KETSU
D707 KETSU
D715 KETSU
D720 KETSU
D721 KETSU
L702 KETSU
L704 KETSU
L705 KETSU
C707 KETSU
C704 KETU
C705 KETSU
C712 KETSU
C713 KETSU
C714 KETSU
C715 KETSU
C716 KETSU
C717 KETSU
C718 KETSU
C719 KETSU
C721 KETSU
C722 KETSU
C726 KETSU
R702 KETSU
R709 KETSU
R713 KETSU
R714 KETSU
R715 KETSU
R716 KETSU
R717 KETSU
R718 KETSU
R719 KETSU
R720 KETSU
R721 KETSU
R722 KETSU
R723 KETSU
R724 KETSU
R725 KETSU
R730 KETSU
R731 KETSU
R732 KETSU
R733 KETSU
R734 KETSU
R735 KETSU
R736 KETSU
R737 KETSU
R738 KETSU
R739 KETSU
R740 KETSU
R741 KETSU
R742 KETSU
R743 KETSU
R744 KETSU
R745 KETSU

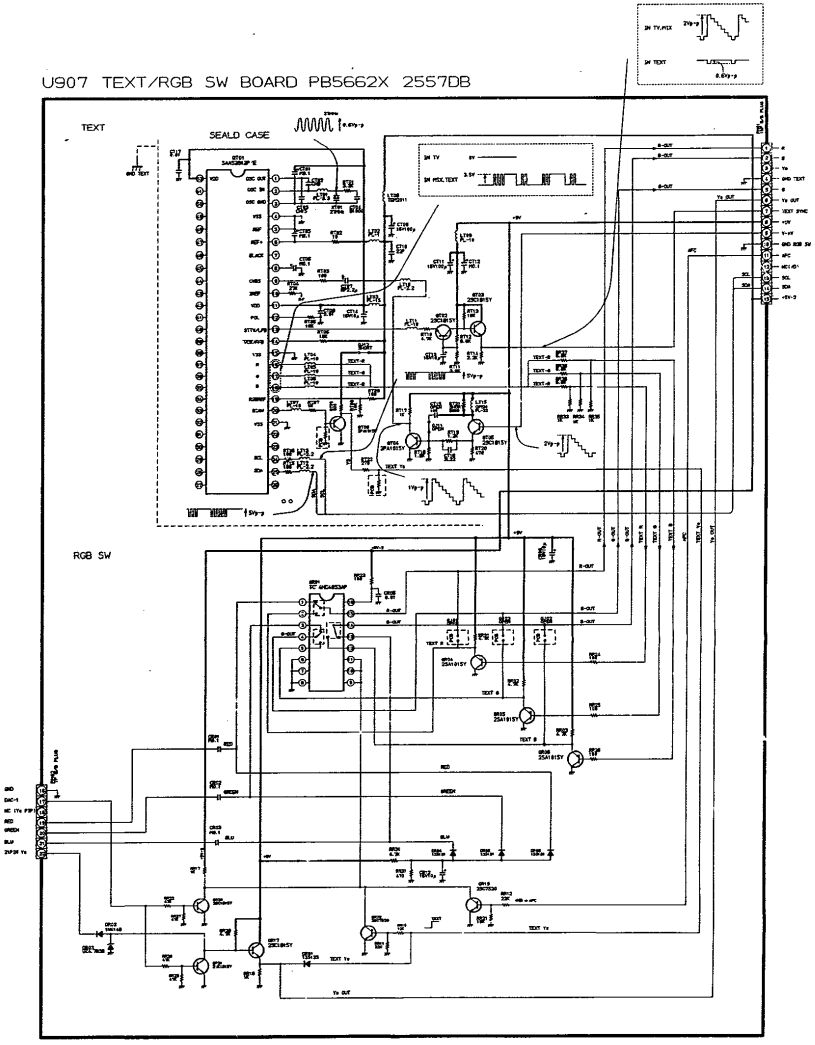
030 9611

SCHEMATIC DIAGRAM MODEL: 2557DB (4/4)

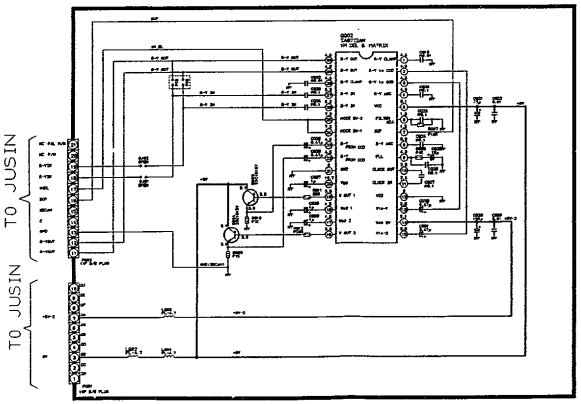
U908 PRO-LOGIC BOARD PB5665 2557DB



U907 TEXT/RGB SW BOARD PB5662X 2557DB

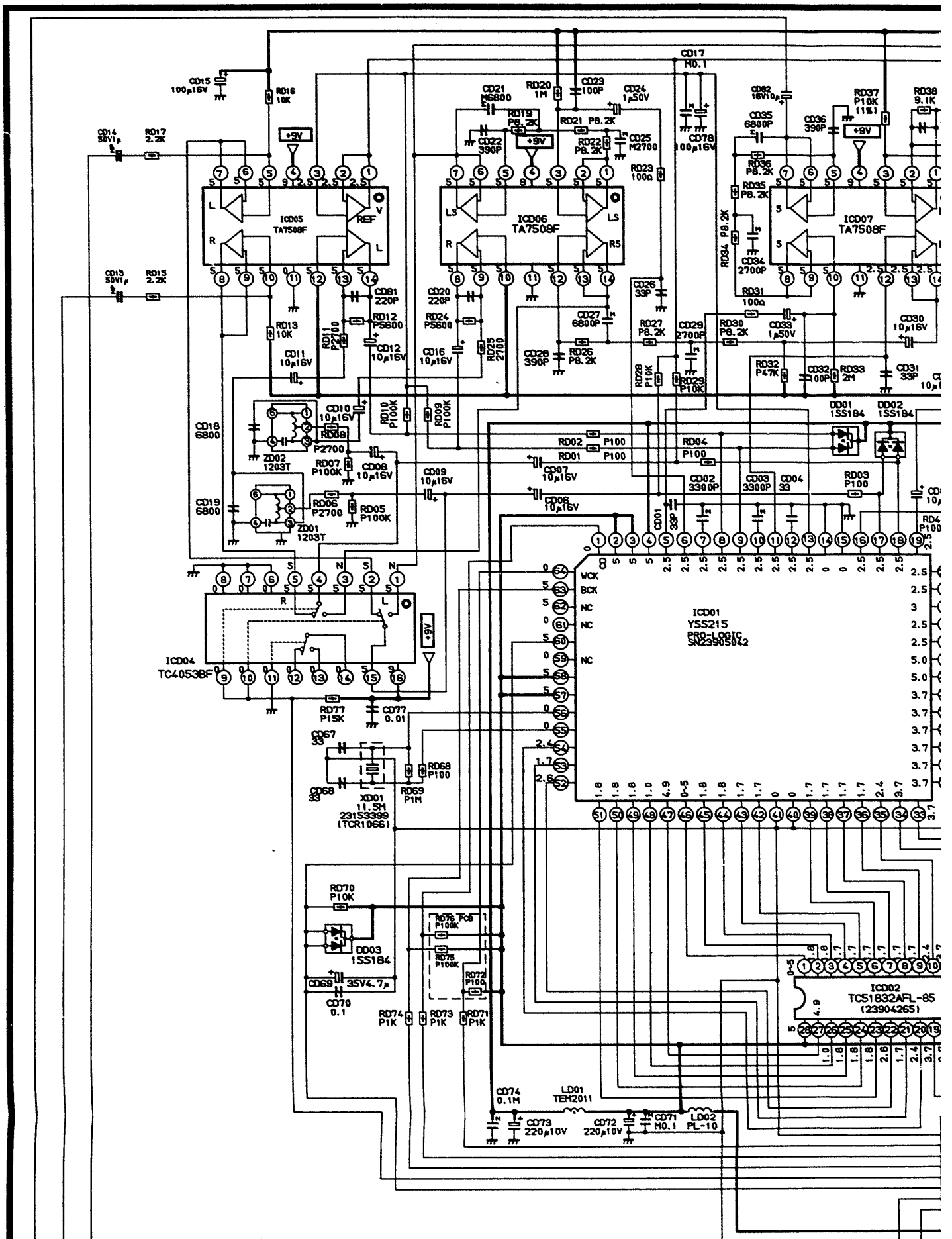


U906 1H DL BOARD PB5661G

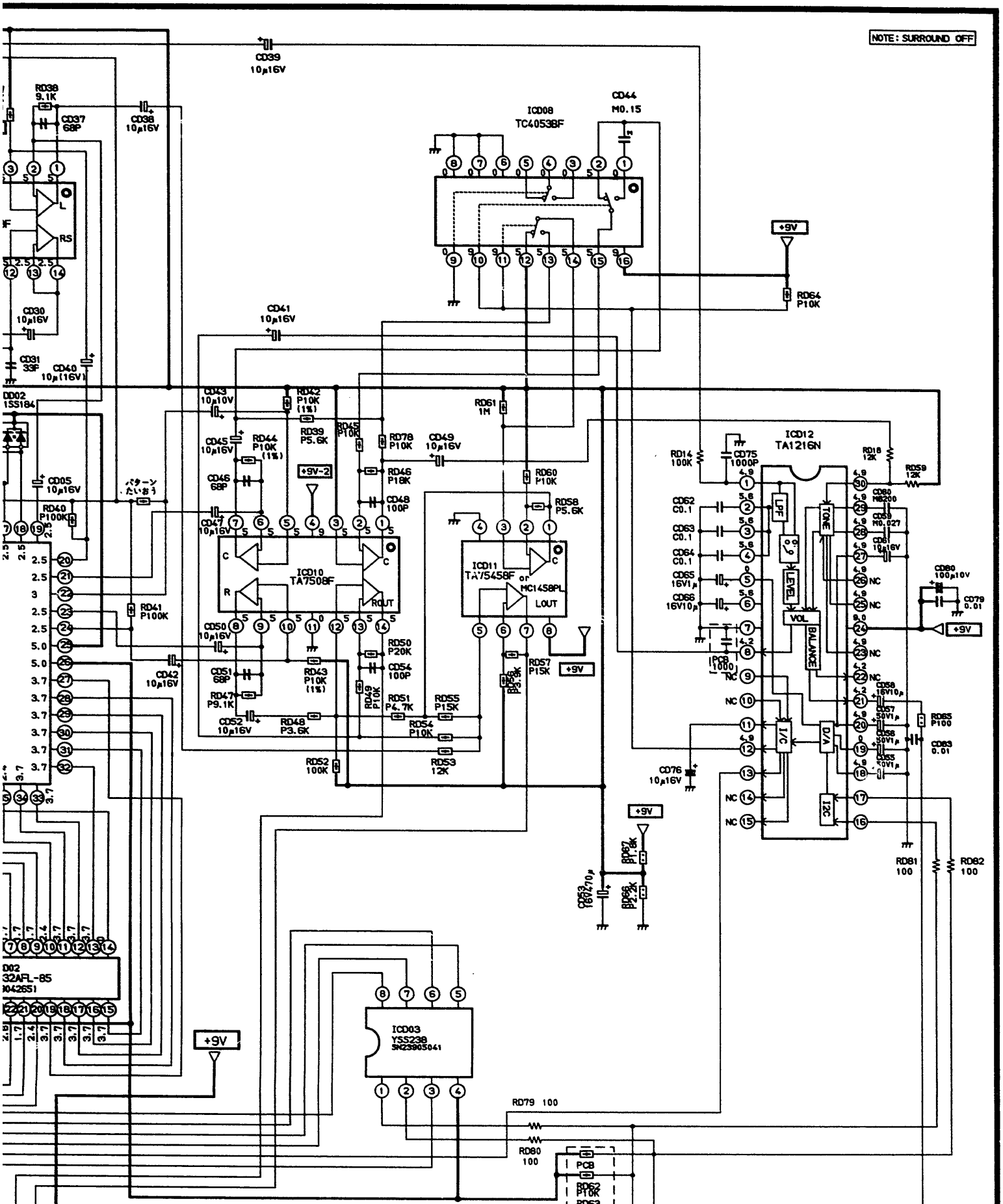


SCHEMATIC DIAGRAM MODEL: 255

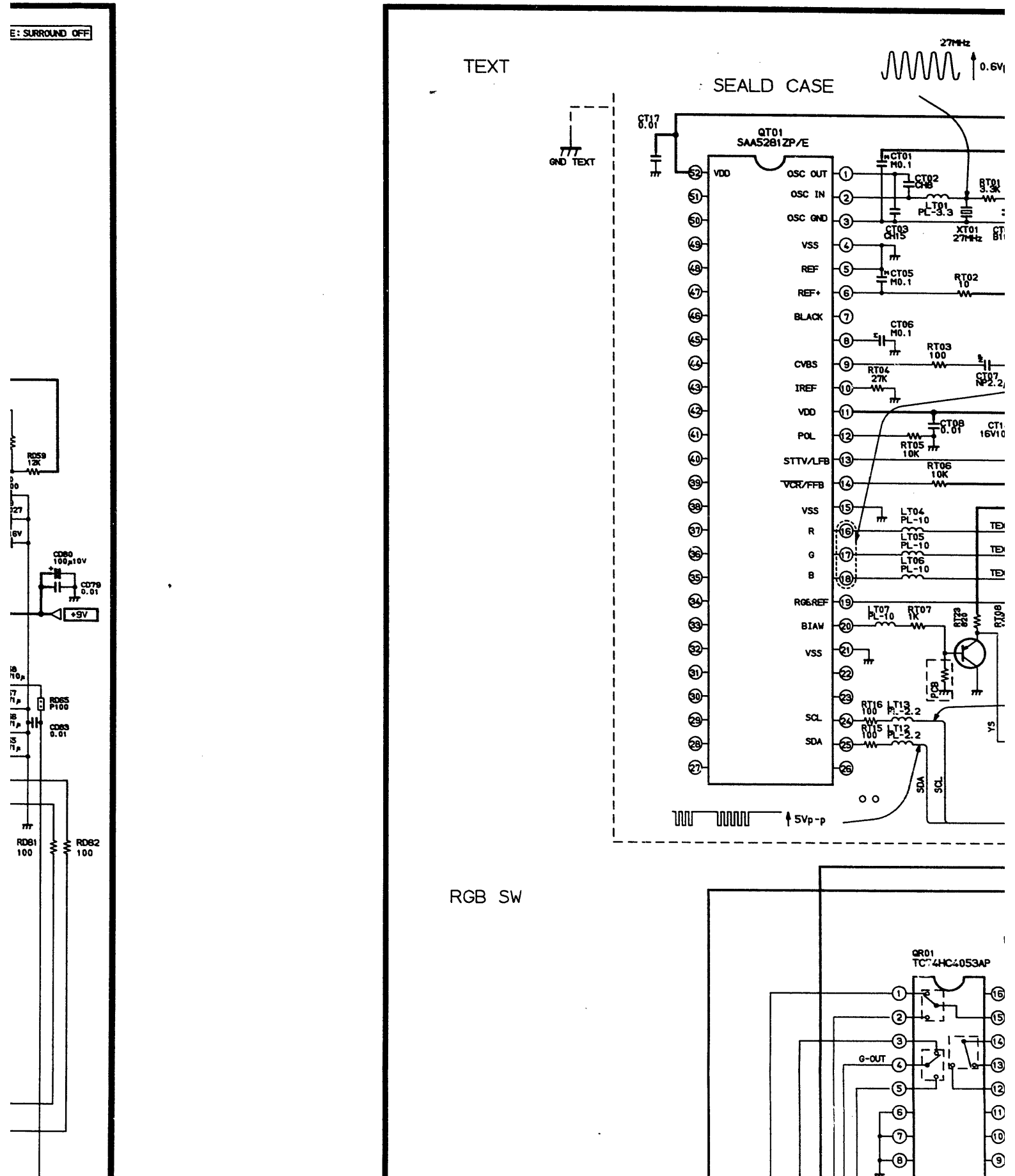
U908 PRO-LOGIC BOARD PB5665 2557DB



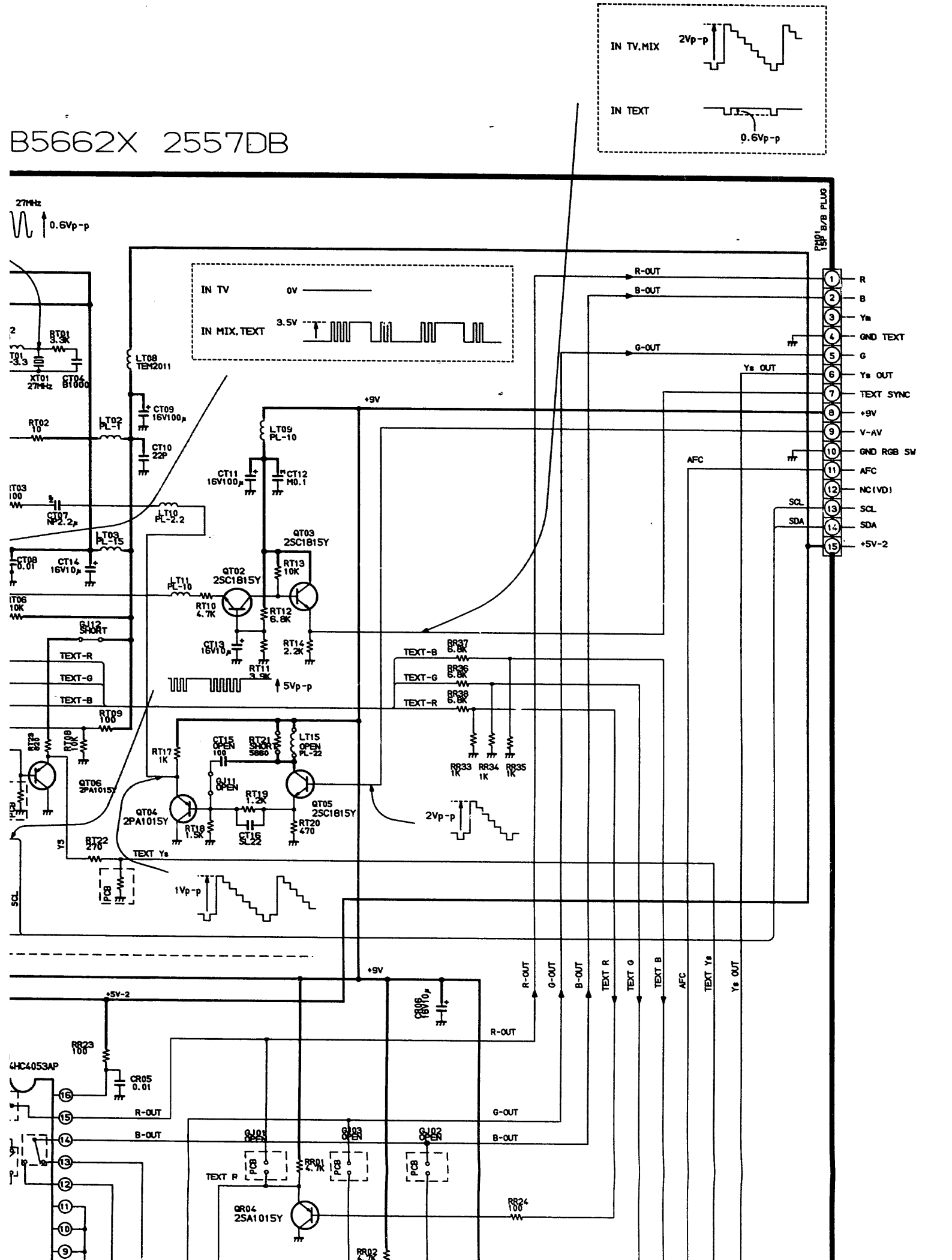
2557DB (4/4)

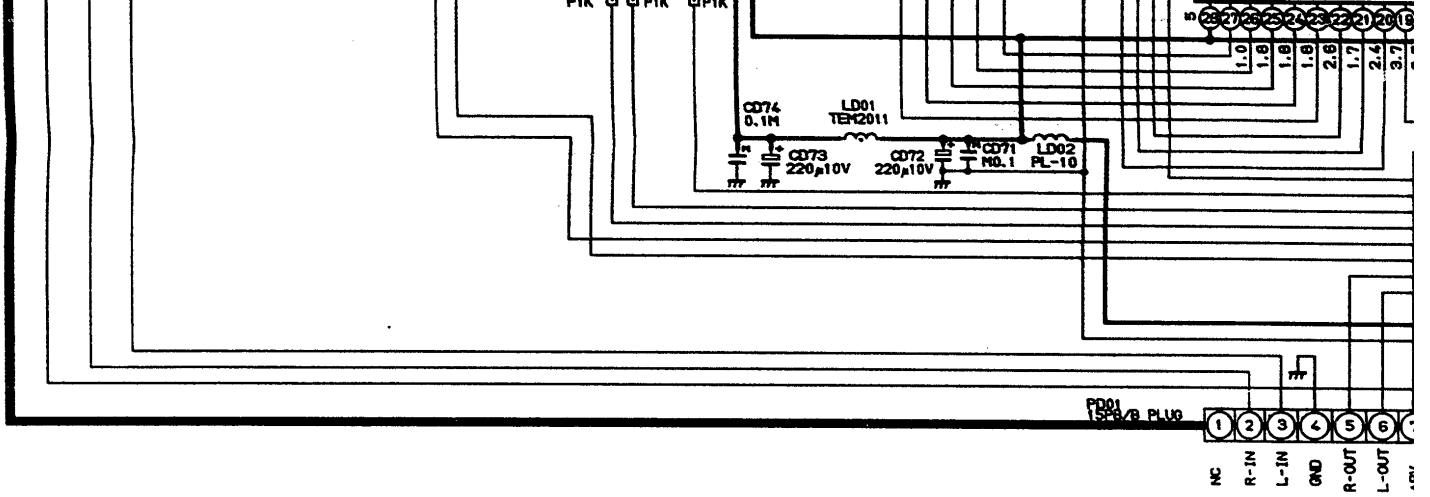

NOTE: SURROUND OFF
ICD08
TC4053BF
ICD10
TA7508F
ICD11
TA75458F or
MC1458PL
ICD12
TA1216N
ICD03
Y5S238
SN23905041
+9V
+9V-2
LPF
TONE
LEVEL
VOL
BALANCE
I/C
V/D
I2C
PCB

U907 TEXT/RGB SW BOARD PB56

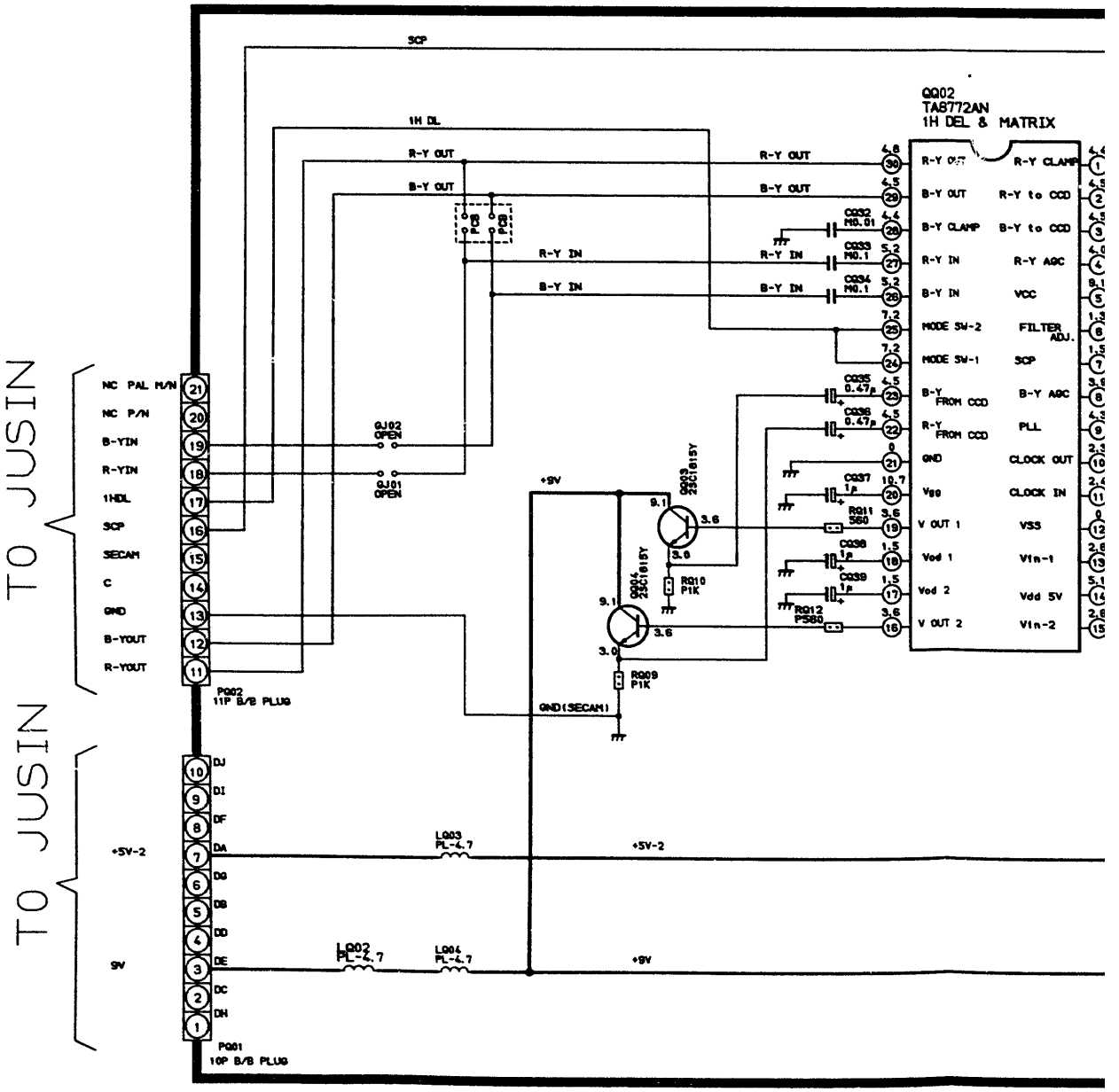


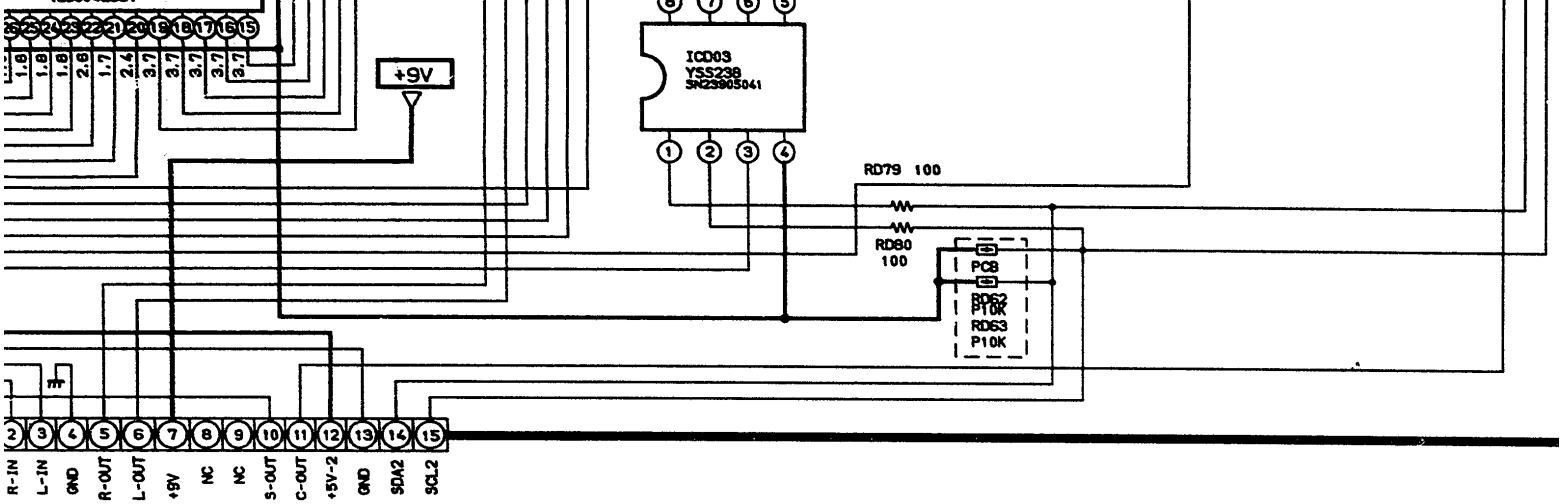
B5662X 2557DB

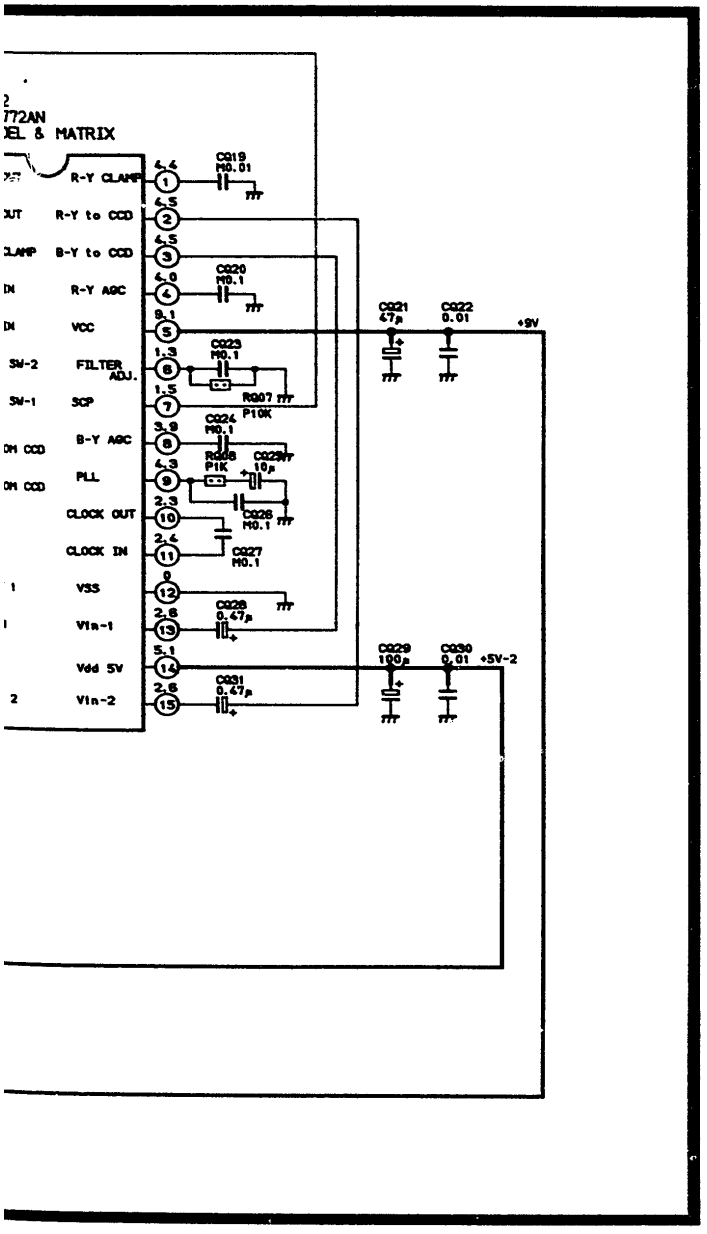


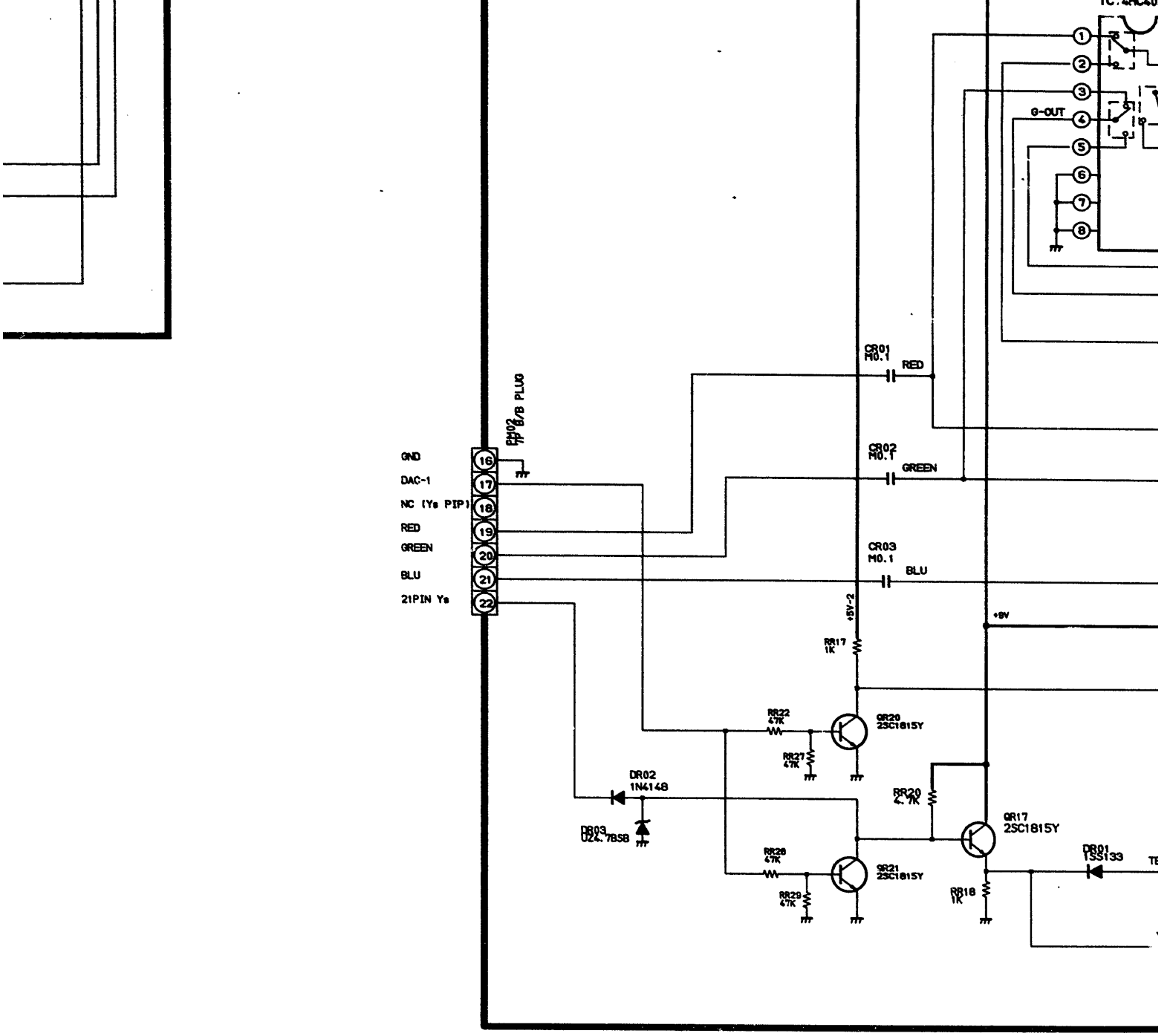


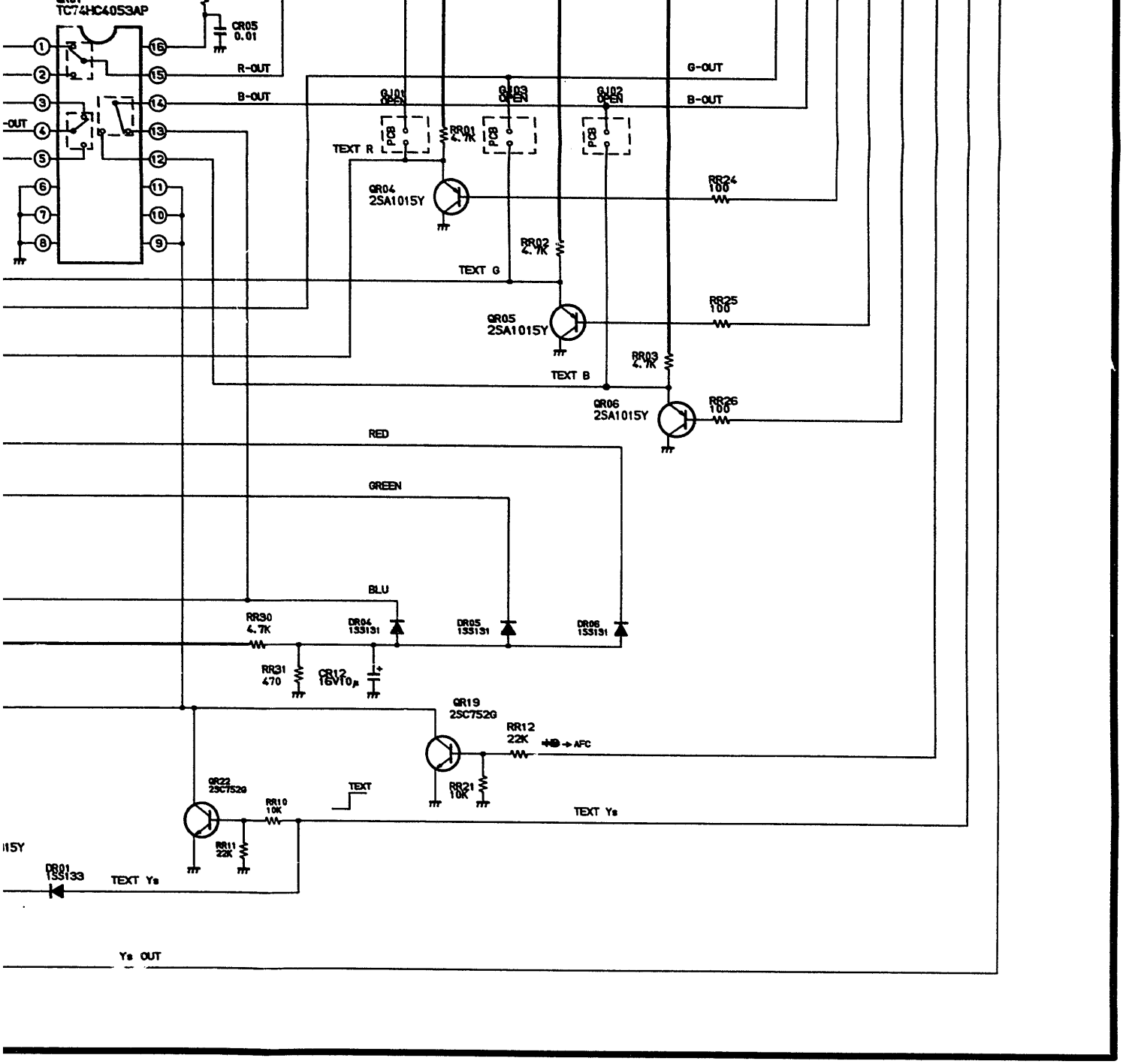
U906 1H DL BOARD PB5661G




+9V
IC003
YSS238
SN23905041
RD79 100
RD80
100
PCB
RD62
P10K
RD63
P10K
R-IN
L-IN
GND
R-OUT
L-OUT
+9V
NC
NC
S-OUT
C-OUT
+5V-2
GND
SDA2
SCL2


772AN
EL & MATRIX
R-Y CLAMP
R-Y to CCD
B-Y to CCD
R-Y AGC
VCC
FILTER ADJ.
SCP
B-Y AGC
PLL
CLOCK OUT
CLOCK IN
VSS
Vin-1
Vdd 5V
Vin-2
C019 M0.01
C020 M0.1
C021 47μ
C022 0.01
+9V
C023 M0.1
R007 P10K
C024 M0.1
R008 P1K
C025 10μ
C026 M0.1
C027 M0.1
C028 0.47μ
C029 100μ
C030 0.01
+5V-2
C031 0.47μ


G-OUT
CR01
M0.1
RED
CR02
M0.1
GREEN
CR03
M0.1
BLU
GND
DAC-1
NC (Ys PIP)
RED
GREEN
BLU
21PIN Ys
+5V-2
+9V
RR17
1K
RR22
47K
RR27
47K
QR20
2SC1815Y
DR02
1N4148
DB03
RR20
4.7K
QR17
2SC1815Y
DR01
RR28
47K
RR29
47K
QR21
2SC1815Y
RR18
1K


TC74HC4053AP
CR05
0.01
R-OUT
G-OUT
B-OUT
B-OUT
G101
OPEN
G103
OPEN
G102
OPEN
PCB
RR01
4.7K
TEXT R
QR04
2SA1015Y
RR24
100
RR02
4.7K
TEXT G
QR05
2SA1015Y
RR25
100
RR03
4.7K
TEXT B
QR06
2SA1015Y
RR26
100
RED
GREEN
BLU
RR30
4.7K
DR04
1SS131
DR05
1SS131
DR06
1SS131
RR31
470
CR12
16V10μ
QR19
2SC752G
RR12
22K
+B → AFC
QR22
2SC752G
RR10
10K
TEXT
RR21
10K
TEXT Ys
RR11
22K
DR01
1SS133
TEXT Ys
Ys OUT